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New Haven YMCA

Junior College

1949-1950

AN INDEPENDENT COMMUNITY COLLEGE OPERATING IN YALE UNIVERSITY

Administrative Offices

Winchester Hall

15 Prospect Street

New Haven 11, Conn.

Telephone 7-3131, ext. $\left\{ \begin{array}{l} 2137 \\ 2138 \end{array} \right.$

Office Hours

Monday, Wednesday, and Friday

9 A.M. to 10 P.M.

Tuesday and Thursday

9 A.M. to 5 P.M.

Saturday

9 A.M. to 12 Noon



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STERLING TOWER

The College operates in the science and engineering buildings of Yale University

CATALOGUE

1949-1950

NEW HAVEN YMCA JUNIOR COLLEGE

NEW HAVEN, CONNECTICUT



Member of

American Association of Junior Colleges
Association of YMCA Schools and Colleges
Connecticut Conference of Junior Colleges
New England Association of Colleges and Secondary Schools
New England Junior College Council

Accredited by

Connecticut State Department of Education

Relations With Yale University



New Haven YMCA Junior College operates in Yale University as an independent community institution. Yale contributes ten buildings without charge as a part of its service to the community. These buildings include laboratories of engineering and basic sciences, libraries, lecture rooms, and administrative offices. Needless to say, the community would find it exceedingly difficult to duplicate these facilities, and without them the type of program offered by the Junior College would be impossible.

The College, however, is in every respect an independent institution chartered as a separate corporation by legislative action. Its Board of Governors is composed of representatives from industry, Yale University, the Y.M.C.A. of New Haven, the faculty and alumni of the Junior College, and the Foremen's Club of New Haven. By virtue of its independence it is free to analyze the needs of the community for collegiate education and then to organize programs of instruction most appropriate to those needs.

The many personal contributions of the faculty and administrative officers of Yale University are also of special significance to the program of instruction. In 1948-49 twenty members of the Yale faculty carried instructional responsibilities in the Junior College. Several others served as advisers in their specific fields. Through this cooperation on the part of men recognized as authorities in their respective fields, the Junior College is able to enter many more areas of specialization than would otherwise be possible.

Calendar 1949-1950

Summer Semester: 1949

Registration period closes	Saturday	June 11
Tuition due (first payment)	Saturday	June 11
Placement examinations		June 13 & 15
Classes begin	Monday	June 27
Independence Day (holiday)	Monday	July 4
Labor Day (holiday)	Monday	September 5
Final examinations end	Monday	September 12

Fall Semester

		1949
Placement examinations		August 17 & 19
Registration period closes	Wednesday	September 7
Tuition (first payment due)	Wednesday	September 7
Placement examinations		September 8 & 9
Assembly	Friday	September 23
Classes begin	Monday	September 26
Thanksgiving (holiday)		November 24 & 25
Christmas recess		December 21 - January 3
		1950
Classes resume	Wednesday	January 4
Final examinations begin	Monday	January 23
Final examinations end	Monday	January 30
Recess		January 31 - February 12

Spring Semester

Placement examinations		January 11 & 13
Registration period closes	Monday	January 23
Tuition (first payment due)	Monday	January 23
Placement examinations		January 25 & 27
Assembly	Friday	February 10
Classes begin	Monday	February 13
Washington's Birthday (Holiday)	Wednesday	February 22
Spring recess		April 1 - 9
Classes resume	Monday	April 10
Memorial Day (holiday)	Tuesday	May 30
Final examinations begin	Monday	June 5
Final examinations end	Monday	June 12

Summer Semester: 1950

Registration period closes	Saturday	June 10
Tuition due (first payment)	Saturday	June 10
Placement examinations		June 12 & 14
Classes begin	Monday	June 26
Independence Day (holiday)	Tuesday	July 4
Final examinations end	Friday	September 1

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Faculty: 1948-1949

- ABELSON, STANLEY A. *Mathematics*
B.S., Yale University
- ALEXION, JOHN *Industrial Organization and Management*
Brooklyn Polytechnic Institute; B.Sc., New York University
Staff Industrial Engineer, Burlington Mills Corp. of N. Y.
- ARTHUR, GEORGE R. *Electricity*
B. Eng., Yale University
Yale University
- ATHERTON, RICHARD *Strength of Materials*
B.S., B.E., M. Eng., Yale University
Assistant in Instruction, Yale University
- BAUMES, CARL G. *Office Supervision and Management*
B.A., Union College
General Office Manager, R. Wallace & Sons
Secretary-Treasurer, The Middlesex Silver Co.
- BENEDICT, RICHARD A. *Mathematics*
B.A., Amherst College
Yale University
- BENNETT, CLARK R. *Production Control*
Assumption College
Plant Manager, The Acrotorque Company
- BENNETT, RONALD V. *Principles of Selling*
Sales Department, Winchester Repeating Arms Co. and
Bond Electric Corporation
- BERTRAM, FREDERICK W. *Public Relations*
University of Toronto
Staff Assistant—Public Relations, The Southern New England
Telephone Company
- BOOTH, C. E. *Physics*
Ph.B., Yale University
Electrical Engineer, Westcott & Mapes, Inc.
- BOWERMAN, RICHARD H. *Law*
B.A., L.L.B., Yale University
Attorney-at-Law, Gumbart, Corbin, Tyler & Cooper
- BRADLEY, ROBERT *Engineering Drawing*
Assistant Chief Engineer, High Standard Manufacturing Corp.

- BROEKHUYSEN, EGBERT** *Methods Engineering*
M.E., E.E., Technical College of Amsterdam, Netherlands
Plant Superintendent, Micromatic Hone Corp.
Micro-mold Mfg. Division, Guilford, Conn.
- BUCHHEIM, ROBERT W.** *Electricity*
B.E., M.E., Yale University
Instructor, Yale University
- CARRINGTON, FRANKLYN H.** *Accounting*
A.S., New Haven YMCA Junior College
C.P.A., State of Connecticut
Certified Public Accountant
- CARROLL, MADALENE** *English*
B.A., M.A., Columbia University
Director of Speech Correction, New Haven Public Schools
- CHIRGWIN, ALLAN B.** *Machine Design*
B.S., Yale University
Chief Draftsman, Farrel-Birmingham Co.
- CHRISTIAN, ROBERT R.** *Mathematics*
B.S., Yale University
Assistant Instructor, Yale University
- CLARK, STEPHEN C.** *Psychology*
B.A., M.A., University of Washington
- COLLINS, DONALD P.** *Personnel Seminar*
Wesleyan University
Division Plant Supervisor, The Southern New England
Telephone Company
- CONKLING, GEORGE J.** *Accounting*
A.S., New Haven YMCA Junior College
Senior Auditor, Auditors of Public Accounts, State of Connecticut
- DEBARD, AUGUST A., JR.** *Accounting*
B.C.S., M.C.S., M.A., New York University
Director of Finance, Town of Milford, Connecticut
- DIDSBURY, BERNARD** *Tool Design*
Bridgeport Engineering Institute
Tool Designing, Farrel-Birmingham
- DILLON, JOHN BERNARD** *English*
B.A., Yale University
Yale University Law School
- DENKER, JANE G.** *English*
B.A., Smith College

LAWRENCE L. BETHEL
Director



HAROLD W. SCHAUGHENCY
Industrial Coordinator and
Chairman, Management
Division

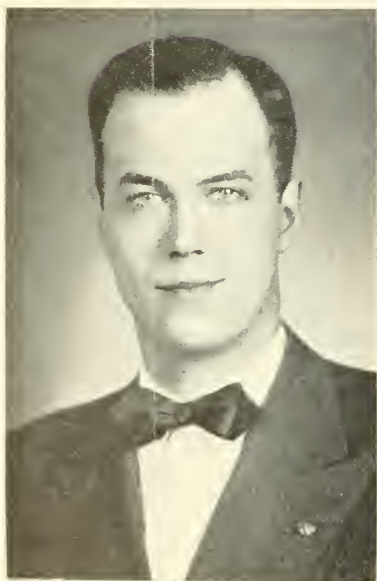
M. K. PETERSON
Director of Instruction and
Chairman, Division of Business



JULIA M. STOCKOVER
Registrar



KATHARINE BLENIS RAMSHAW
Secretary to the College



WALTER R. HIBBARD, JR.
Chairman, Division of Engineering
and Department of Materials
Engineering



JAMES M. ORR
Director of
Student Personnel

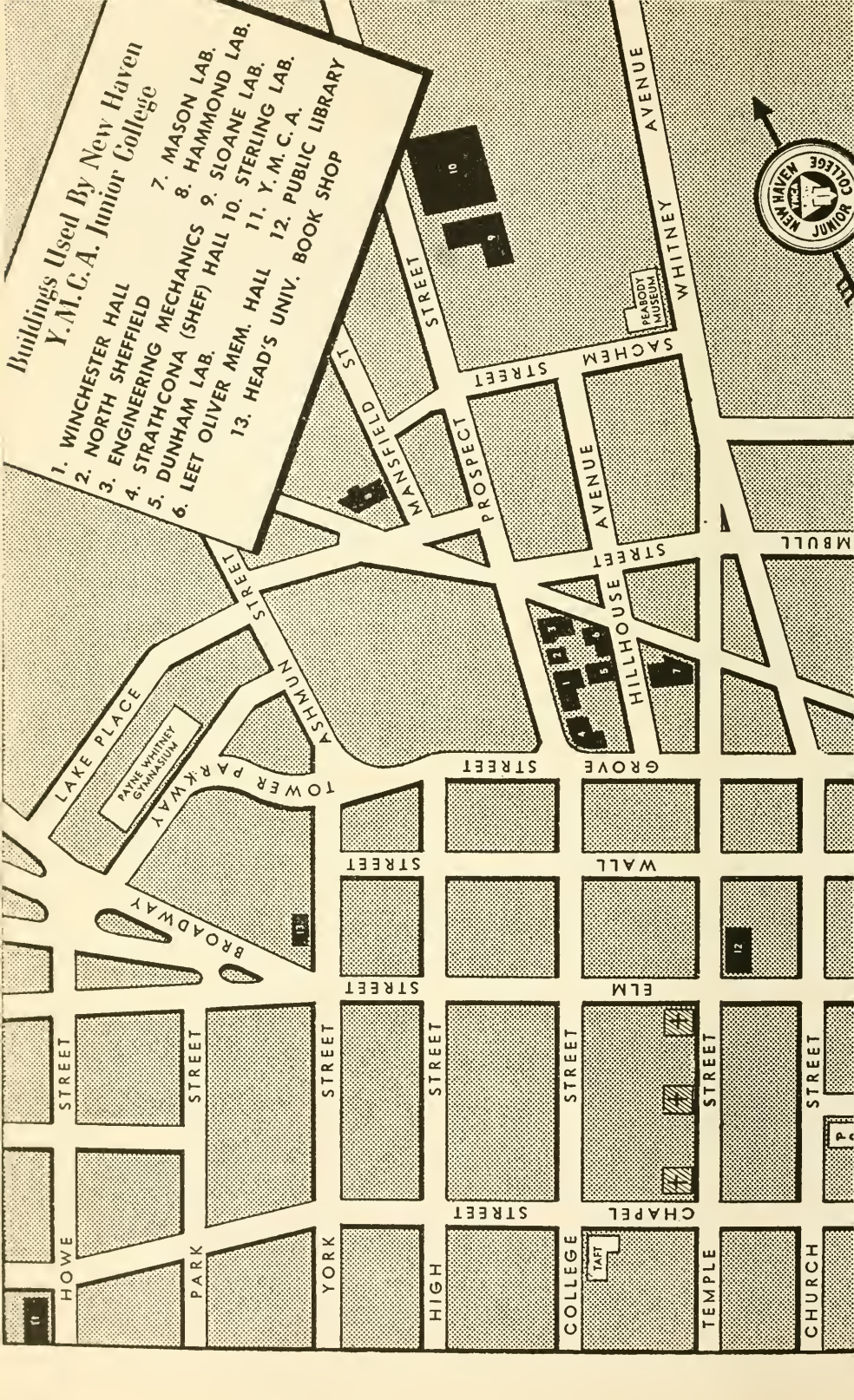
- DOLAN, JOHN T. *Physics*
 B.S., Brown University
 Electrical Department, Westcott & Mapes
- EATON, CARROLL R. *Methods-Time Measurement*
 Supervisor, Methods & Standards Section
 Remington Arms Company
- ECKELS, ARTHUR R. *Electrical Metering*
 B.S., U. of Connecticut; M.S., Harvard University
 Instructor, Department of Electrical Engineering, Yale University
- ECKERSON, C. DAVID *Methods and Costs*
 Time Study Engineer, Scovill Manufacturing Co.
- FISCHER, FREDERICK F. *Accounting*
 B.C.A., Northwestern University; C.P.A., State of Connecticut
 Secretary of Connecticut Society of Certified Public Accountants
 Certified Public Accountant
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 F. F. Fischer, Certified Public Accountant
- FRENCH, DAVID A. *English*
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 Yale University
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- HARVEY, ELEANOR *English*
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 Teacher, New Haven Public Schools
- HERDMAN, DONALD L. *Psychology*
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- HIBBARD, WALTER R., JR. *Metallurgy*
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- HUNT, LEIGH W. *Engineering Drawing*
 Assistant Chief Draftsman, Safety Car Heating & Lighting Company
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 Yale University

- JOHNS, GILPIN R. *Mechanics*
Drexel Institute of Technology; Licensed Professional Engineer
Engineer, Farrel-Birmingham Company
- JOHNSON, HAYNES N. *Science*
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Yale Law School
- JUVILER, PETER H. *Electricity*
B.E., Yale University
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- MADDIN, ROBERT *Mechanical Processes, Engineering Materials*
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- MARSHALL, ROBIN A. *English*
B.A., Tulane University
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- MARTIN, EVERETT W. *Industrial Safety*
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- MILLIGAN, WILLIAM E. *Chemistry*
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- NOWAK, GEORGE J. *Accounting*
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 Senior Supervisor, Kircaldie, Randall, and McNab
- ONUF, BRONIS R. *Physics*
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 Instructor, Yale University
- ORDUNG, PHILIP F. *Electricity*
 B.S., South Dakota State College; M.E., Yale University
 Assistant Professor, Department of Electrical Engineering,
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 M.A., Yale University.
- PETERSON, M. K. *Accounting*
 B.S. in Econ., Wharton School of Finance and Commerce,
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- PAUL, DONALD J. *Methods-Time Measurement*
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- RHODES, JAMES L. *Mechanics of Machines*
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 Yale Instructor in Dept. of Mech. Engr., Yale University
- ROBERTSON, THOMAS *Engineering Drawing*
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 Consulting Engineer, Westcott & Mapes, Inc.
- RODDY, MATTHEW F. *Management-Labor Relations*
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- RUMBERG, ERNEST F. *Production Control, Methods and Costs*
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- SCHNEIDER, HORACE W. *Industrial Organization and Management*
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M.A., Ph.D., Ohio State University
Industrial Relations Supervisor, Naugatuck Chemical Division of
United States Rubber Co.
- SKALNIK, JOHN G. *Electricity*
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Instructor, Yale University
- SMITH, PHILIP A. *Mathematics*
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- SMITH, STEPHEN R. *Business Seminar*
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Assistant Professor, Yale University
- STOCK, JACK *Modern Civilization*
B.A., L.L.B., Yale University
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- STACKMAN, HARVEY A., JR. *Personnel Administration*
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Personnel Administrator, Wage and Salary Control, Personnel
Research, Scovill Mfg. Co.
- TIERNAN, GEORGE R. *Law*
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Attorney-at-Law
- TISDALE, GLENN E. *Mathematics*
B. of E., M.E., Yale University
Yale University
- TRIBKEN, EVERETT R. *Electricity*
B.E., B.S., Yale University
Yale University

- UNDERWOOD, DALE S. *English*
B.A., University of Kansas; M.A., Yale University
Instructor, Yale University
- UNGVARY, ROBERT L. *Electricity*
B.E., M.E., Yale University
Research Assistant, Dept. of Electrical Engineering, Yale University
- UPHAM, PHILIPS W. *Advertising*
Pratt Institute
President, Philips, Webb, Upham & Co., Inc.
- WAIBLER, PAUL J. *Thermodynamics*
B.S., Kansas State College; M.E., Yale University
Instructor, Yale University
- WELT, ISAAC D. *Chemistry*
B.S., M.S., McGill University
Assistant in Research, Nutrition Laboratory, Yale University
- WHITE, STEPHEN T. *Quality Control*
B.S.E., Princeton University
Quality Control Engineer, General Electric Co.
- ZWEIG, FELIX *Electricity*
B.E., Ph.D., Yale University
Assistant Professor in Electrical Engineering, Yale University



- Buildings Used By New Haven
Y.M.C.A. Junior College*
1. WINCHESTER HALL
 2. NORTH SHEFFIELD
 3. ENGINEERING MECHANICS
 4. STRATHCONA (SHEP) HALL
 5. DUNHAM LAB.
 6. LEET OLIVER MEM. HALL
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 11. Y. M. C. A.
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New Haven YMCA Junior College

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History of the College — New Haven YMCA Junior College reaches its twenty-ninth birthday in 1949, its present status and organization being the result of several stages of growth. The seed of the present institution was planted shortly after World War I when the New Haven YMCA organized a series of vocational courses to aid in the rehabilitation of returning veterans of that war. This work grew to such proportions that in 1920 it was organized as a branch of Northeastern University. The association with that University continued until 1926, when the College was incorporated as an independent educational institution known as New Haven College, operating in the buildings of Yale University.

In 1930, under the leadership of Dr. Ellis C. Maxcy, then Director of the College, a movement was started away from the general adult program of relatively unrelated courses and toward greater emphasis on the development of courses in sequences directed toward the specific needs of students seeking well rounded programs of vocational preparation leading to a degree.

In 1935, the College was accredited by legislative act of the State of Connecticut and its name was changed to New Haven YMCA Junior College. Under this name it has continued to function until the present.

Another significant development of the middle thirties was the inauguration of greater cooperation with business and industry as a means for better analysis of student needs in vocational preparation and for more effective guidance of the student in his studies. The effectiveness of a two-year experiment with 15 companies led to a policy of cooperation with over 300 companies.

Out of this policy of cooperation has grown the "Work-Study" program of the College through which work in a cooperating company and study at the College are woven together into a cooperative program of education.

During World War II the College was responsible for the Engineering, Science and Management War Training program of Yale University in New Haven County, a program intended as an aid to war industry. From this added contact with industry the College gained experience in its continuing attempts to serve community needs.

July 1944 brought the enrollment of the first veteran of World War II, and since that time the number of veterans has steadily increased until they constituted about two thirds of the student enrollment by the spring of 1947. The New Haven YMCA Junior College is once again fulfilling its original function—but in a larger and more comprehensive scope than in 1920.

Purposes of the College — Education specially related to employment in the community is the major purpose of New Haven YMCA Junior College. This has been the principal objective of the College during the quarter of a century of its existence. Relationships with Yale University are based upon a mutual realization of this goal; it is for this purpose that YMCA funds, drawn from the Community Chest and other sources, are granted to the College.

Specifically, the objectives of the College are:

1. To provide education at the college level appropriate for employed persons.
2. To coördinate the college program with the needs of employed men and women through the development of the Work-Study Program when possible.
3. To serve special community needs for education compatible with the first two objectives.
4. To attempt to achieve the maximum development of the individual through guidance, counseling, testing and placement.
5. To attempt to achieve the maximum effective development of education through advisory service to cooperating business and industry regarding training programs and college offerings.

Work-Study Point of View — Recognizing that education, in the broadest sense of the word, is a process confined not alone to the classroom, the program of instruction provided by the College takes notice of a student's job as well as his instructional experiences.

The College believes that work is good educational experience, but that when work experience is related to academic instruction it is better. It, therefore, contends that a student's work experiences and academic experiences should be integrated as much as is possible and feasible. It sees this integration as a means whereby the traditional barrier between the academic and the practical may be broken down. To this end the College has developed a point of view which is frequently referred to as Work-Study.

In accordance with the Work-Study point of view, the College encourages and assists its students either to seek employment which is related to their programs of study, or to pursue programs of study which are related to their present or contemplated work. This the College does because it regards the student's job as a laboratory where he may apply the knowledge he gains at the College, or from which he receives practical incentives for study in the classroom. As is to be expected, the degree of relationship between work and study will vary between companies depending on the variety of experience possible in a given company and the degree of co-operation developed between the College and the company in planning for these relationships.

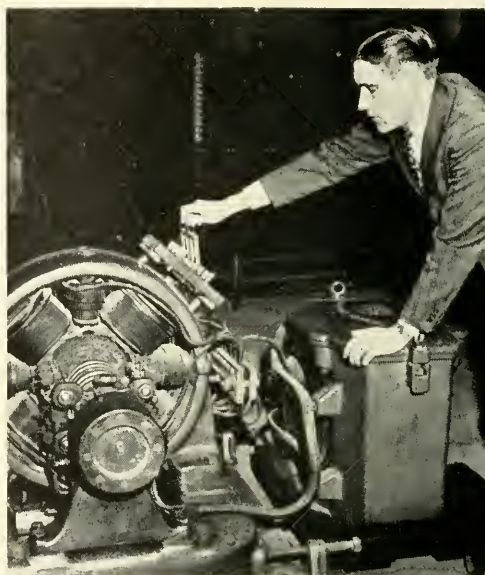


WINCHESTER HALL
Administration Building



— AT WORK

IN THE LAB —



— GROUP DISCUSSION



For the first year of study the student has three alternatives:

1. He may carry a full program of study of 15 semester hours per semester without carrying a program of employment concurrently (see outline of courses, p. 57).
2. He may carry a full program of study plus a maximum of 20 hours of work.
3. He may carry a full work program and a maximum study program of 7½ semester hours per semester.

It is important that the student pursue a program of work after the first year, since Work-Study is the primary purpose of the College. It has been found that, although not essential to the more elementary work of the first year, work experience is essential thereafter if the student is to progress with the general level of his classes. Dependence is placed on work experience for acquiring technical terminology, skill, and familiarity with illustrations which will be used in classes. While the degree of essential relationship between work and study may be slight in even the second year, the need progressively increases in the advanced stages of the program. The most elementary office jobs for a business student, or comparable plant jobs for an engineering student, are considered sufficiently related for the earlier part of the Work-Study program.

The placement activity of the College, described elsewhere in this bulletin, is designed primarily to implement the Work-Study idea; that is, to assist student-employees to arrange an integrated program of related work and study.

Cooperation with Business and Industry — In order to facilitate the integration of work and study, the College attempts to develop a pattern of coöperation with the employers represented by the student group. Each employer is encouraged to appoint a Work-Study coördinator who functions as a liaison officer between the College and the employer in matters concerning the student-employee. The coördinator may be expected to assist the College in selecting students and in planning student study programs. He may provide counseling service on the job, arrange for adapting working hours to facilitate the student's study, assist the student in obtaining more nearly related work, or he may develop in-service training programs which are coördinated with College study. The exact nature of his responsibilities varies from company to company, for no set pattern of coördination is prescribed. It is the company coördinator with whom the College deals in matters requiring the coöperative efforts of the College and the employer. To the coördinator are sent periodic reports of the student's progress in his studies, unless the student has requested that such reports be withheld.

Many companies have established scholarship funds covering all or part of the tuition of student-employees. Some scholarships also cover the cost of books, fees, and transportation.

Employee Training Agreements — A group of coöperating companies are now contributing financially to the development program of the College

through five-year *Employee Training Agreements*. The purposes of this development program are:

I. Course and program development.

1. Special courses developed to meet the specific needs of one or more companies.
2. New programs within the College of a long-term nature.
3. Reorganization and adaptation of present programs.

II. Special work with student-employees.

1. Placement service to the company and the student.
2. Selection of trainees.
3. Counseling with student-employees.
4. Coöperative planning and coördination of work and study.

New course developments must, of course, be held for a time to a point where they can be handled adequately. Therefore, it is the policy of the College to give *priority* to student-employees of companies coöperating under Employee Training Agreements in entrance to courses of the development program: (1) for as long as is necessary to take care of qualified applicants from these coöperating companies, (2) provided such limitation is consistent with good educational practice for any given course, and (3) for as long as it is necessary to complete the development work involved in the course.

Schedule of Hours — The College operates continuously from 1 P.M. to 9:30 P.M., the evening hours being limited to Monday, Wednesday, and Friday. This provides a degree of flexibility for the student who wishes to adjust his schedule to his own needs. A student who ends his working hours at 4 or 5 o'clock may prefer to schedule some of his classes at 4:45 P.M. or 6 P.M., thus reducing the number of evenings required for attendance. Or, for various reasons, he may wish to schedule all his classes (if not carrying more than one-half of a full program) after 7:15 in the evening, three evenings per week, on Monday, Wednesday, and Friday.

Those students who at present may be working in the evening hours may find it possible to schedule early afternoon classes. The student carrying a full program of study (15 hours per week, courses listed on p. 53) for the first year will probably find it necessary to schedule classes in both afternoon and evening, not to exceed three evenings per week.

Programs of Study

The College offers the Associate in Science degree in each of the following programs:

1. Division of Business—Business Administration, Public Accounting, Industrial Accounting, Office Supervision and Management, and Sales and Marketing.
2. Division of Engineering—Electrical Communication, Electrical Power, Mechanical Design, Tool Design, Metallic Materials, and Non-Metallic Materials.

3. Division of Management—Personnel Supervision, Industrial Administration, and Industrial Safety.

Each of these programs is described in detail in pages 35 to 52.

Graduation Requirements

The requirements for graduation for the various student categories are as follows:

Without Advanced Standing—A student who is enrolled in any one of the fourteen programs of study without credits from another institution or without credits from another program of this College will be required to complete sixty semester hours of study in the manner and sequence specified by the program outlines on pages 35 to 52. Upon completion of the required sixty semester hours of study, upon recommendation of the faculty, and upon acquisition of a 2.0 Quality Point Ratio, a student will be granted the Associate in Science degree from the division of which his completed program is a part.

With Advanced Standing—A student who enrolls in any one of the fourteen programs of study and who has advanced credits to offer, by virtue of study in another accredited institution or by virtue of previous study in another program of this College, will present his advanced credits to the Committee on Academic Standing for evaluation. The presentation of the advanced credits to the Committee on Academic Standing will be made through the chairman of the division of the program concerned. The extent of advanced credit to be granted, as well as the sequence and outline of the required courses still to be taken, will be determined by the Committee on Academic Standing. Upon completion of these required courses, upon acquisition of a 2.0 Quality Point Ratio for all courses applicable to the degree requirements, and upon recommendation of the faculty, the degree of Associate in Science will be granted from the division of which his completed program is a part. All students who receive advanced standing by virtue of transfer of credits from other colleges will complete at least fifteen semester hours of study in this college, ten hours of which must be in the specific field of study.

Length of Programs of Study

Some of the fourteen programs of study can be completed in three calendar years, while all programs can be completed in four calendar years, provided that in each case no preparatory work is required. The maximum schedule of subjects must be carried in each year and there can be no irregularities in the sequence if the programs are to be completed within the stated times. The procedures to be followed in each plan are outlined below.

Three-Year Program (1 Year Full-Time Study—2 Years Work-Study) —By completing the one-year program of thirty semester hours of study (described on pages 53 and 54, the student may elect a specific program from the division in which he has been studying. Then, by attendance in after-

noon or evening classes or both, and in summer sessions, he may complete his degree requirements in two additional calendar years. The College, however, reserves the right to withdraw courses planned for summer terms when there is not sufficient enrollment to justify giving them.

Three-Year Program (3 Years Work-Study)—This three-year program provides for carrying three subjects each college term from September to June—a total of fifteen semester hours of credit for the regular term. During a ten-week summer semester the three-year student may earn five additional semester hours of credit, thus earning a total of twenty semester hours within a calendar year. In this way he may complete his program and earn his degree in three calendar years. As stated in the three-year program described immediately above, the College reserves the right to withdraw courses planned for summer terms when there is not sufficient enrollment to justify giving them. If such a required course should not be offered, a student's program may be extended to four years.

Four-Year Program (4 Years Work-Study)—The four-year program provides for carrying three subjects each school term: September to June—with a summer vacation. Through this program fifteen semester hours of credit may be earned each year, and the degree may be earned in a period of four years.

Irregular Program — Students may find it necessary to carry less than the full schedule of subjects. Such students may still be candidates for the degree, but will, by virtue of carrying less than the planned program, extend the number of years required to earn the degree. Since the programs have been set up in a planned sequence, students who carry less than the full program should anticipate specific prerequisites for courses in order to avoid unnecessary delay in their programs. Further, irregular students should consult the department chairman of the program concerned at each registration period so that they may be aware of possible delays.

Additional Time Required for Preparatory Work — Students who enroll for a degree and whose placement examination results, in English or mathematics or both, indicate the need of preparatory or review work will have their programs extended beyond the usual time required for the degree. It is pointed out that no student who needs preparatory work in English or mathematics or both is considered a degree candidate until such preparatory work is completed, although such a student may carry on college level work in fields where preparatory work in English or mathematics is not prerequisite.

Non-Degree Students

Regular Courses — Students who do not wish to be candidates for the Associate in Science degree but who desire to study any of the regular courses offered in the fourteen programs of study, may enroll in these courses as a non-degree student. Non-degree students must meet the regular admission requirements of the College and must satisfy course prerequisites.

Course prerequisites may be satisfied by means of transfer of credit, by either a Crediting or Qualifying Examination, or by evidence of previous practical training. The Qualifying and Crediting Examinations are described elsewhere in the catalog. Evaluation of practical experience will be the responsibility of the division chairman concerned, who will make recommendation to the Committee on Academic Standing for final approval. Non-degree students are expected to attain the same academic standards as degree students, to pay the same tuition and other fees and to come under the regulations of the College in the same manner as degree students.

Special Courses — From time to time special courses may be offered to meet the educational needs of certain students. These courses may or may not be part of the regular curriculum of the College. They may vary from pre-college to graduate level courses, and admission requirements will vary accordingly.

Non-degree students or students enrolled in special courses may matriculate as candidates for a degree under procedures outlined in the section dealing with Graduation Requirements—With Advanced Standing (page 19) or under procedures as outlined in Admission Requirements, whichever is applicable.

Admission Requirements

Three criteria are utilized in determining a student's eligibility for admission to the College. These are: (1) a personal interview with a member of the staff, (2) an evaluation of the student's previous educational record, and (3) an evaluation of the admission examinations.

Although the College prescribes no set pattern of high school subjects as an entrance requirement, the following outlines of high school subjects are suggested as desirable:

For admission to the Division of Business	For admission to the Division of Engineering	For admission to the Division of Management
English 3 units	English 3 units	English 3 units
History and Social Science 2 units	Algebra 2 units	Algebra 1 unit
Mathematics 1 unit	Geometry 1 unit	Geometry 1 unit
Additional academic subjects, not less than 4 units	Physics or Chemistry 1 unit	Additional academic subjects, not less than 5 units
Vocational subjects, not more than 5 units	Additional academic subjects, not less than 5 units	Vocational subjects, not more than 5 units
15 units	Vocational subjects, not more than 3 units	15 units
	15 units	

High school graduates who may not meet the suggested pattern of requirements will be considered for admission on the basis of the quality of their high school work and their academic aptitude as revealed by the psychological examination. The College honors the State High School Diploma.

Admission to the Division of Engineering is to one of three levels: Pre-Engineering, General, and Specialized. See pages 41 and 42 for a description of the levels and the requirements of each.

Admission to the Division of Management requires certain proficiencies in mathematics. For details see "Admission and Placement Examinations," page 24.

Admission of Non-High School Graduates — Non-high school graduates who have completed two years of high school studies, whose high school records are of good quality, and who demonstrate high scholastic aptitude in the admission examinations may be admitted. Generally speaking, they will be required to schedule preparatory work in English and mathematics upon admission. However, in cases of outstanding ability and achievement as demonstrated by tests, the non-high school graduate may be permitted to enroll in courses of college level for one year. Whether the non-high school graduate is required to take preparatory work or is permitted to carry courses of college grade, he must within one year of admission qualify as a high school graduate by successfully passing the State examinations for the State High School Diploma.

State High School Diploma — Recognizing that many capable students withdraw from high school prior to graduation, the Connecticut State Department of Education provides an opportunity for these students to secure the legal equivalent of a high school diploma by means of State Equivalency Examinations.

Candidates for the State High School Diploma must: (1) be graduates of or have the equivalent of an eighth grade education, (2) be sixteen years of age or over, and (3) not be enrolled in a regular day high school. They must pass examinations in four areas of academic study, usually mathematics, English, general science, and social science.

The examinations are given regularly by the Bureau of Youth Services, State Department of Education, Hartford. They are also given by appointment at the Vocational Counseling Service, Inc., 30 Davenport Avenue, New Haven, Connecticut.

It should be noted that the College offers preparatory work in English and mathematics only.

Admission to Advanced Courses — Students desiring to be admitted to advanced courses for which they do not have the formal prerequisites may demonstrate their ability to carry the advanced course by means of either a Qualifying Examination or a Crediting Examination. Successfully passing either type of examination will permit the student to enter the advanced course. The examinations and their purposes are described below.

Qualifying Examination — The purpose of the Qualifying Examination is to provide an opportunity for special students (those not candidates for a degree) to gain admission to the advanced course of their choice without establishing credit in prerequisite courses. The examination is generally

a two-hour written examination, and no credit is established by it. Applications are made to the Director of Instruction.

Crediting Examination — The purpose of the Crediting Examination is to provide a means whereby credit may be established for a course by examination. Since it is the stated policy of the College that no student shall be required to take courses which he does not need because of previous experience or education, and since his previous experience or education may have been with a non-accredited institution or agency, or in the armed forces from which situations official transfer of credit is impossible, a student may meet course prerequisites and/or establish credit in specific courses by passing successfully a Crediting Examination in each of the courses in which he feels qualified.

Students desiring to undertake a Crediting Examination should first discuss the matter with the Director of Instruction. If it is agreed that the examination is feasible, an application card accompanied by a fee of ten dollars is submitted and the examination is then arranged.

Crediting Examination normally will consist of a three-to-four hour written examination and a one-hour oral.

At least one year's successful study must be completed at the college before credit awarded by examination will be granted officially.

Admission with Advanced Standing — Advanced standing may be granted to students who (1) present an official transcript of acceptable credit from an accredited institution of higher learning, or (2) pass a Crediting Examination.

Credit by Transfer — Credit by official transcript from an accredited institution of higher learning will be tentatively evaluated at the time of admission and credit may be granted officially upon completion of a year of successful work in the College.

Application for Admission

Application for admission should be made on or before September 7 for the fall term, on or before January 23 for the spring term, and on or before June 10 for the 1950 summer term. Those who make application after these dates will be required to pay an application fee of \$5.00 instead of \$3.00. Application should be made in person at 114 Winchester Hall, at which time a member of the College staff will interview the prospective student for the purpose of obtaining personal information and of tentatively outlining the student's future program.

Following the interview, and before the dates given above, the applicant must complete the necessary registration forms and pay the application fee.*

* This fee is payable by all veterans whether or not they submit their Certificate of Eligibility at the time of application. It will be refunded to those who actually begin study under Public Law 346 or Public Law 16.

The registrar will then secure from the principal of the applicant's former high school a transcript of his academic record.† Applicants seeking admission by transfer from another college must themselves request their former college to submit a transcript to this College. The application fee is not returned if the applicant withdraws his application or fails to begin classes, but the fee is returned if the College decides not to accept the student. Acceptance of the applicant will be determined on a basis of the interview, an evaluation of previous academic records, and the results of a college aptitude examination. Placement of students in specific courses will be determined on a basis of the examinations given for admission.

Admission and Placement Examinations — All applicants must take the academic aptitude examination (Psychological Examination), except those who, prior to the administration of the examination, present a transcript from a recognized institution of higher education, bearing evidence of at least one year's study with average or better grades.

All students must take an English examination, except those who present at least five semester hours of acceptable credit in English from recognized institutions of higher education. The results of this examination may determine the student's placement in courses and sections. All students who are poorly prepared in mechanics of English will be required to pass English A (Grammar Laboratory); all who are poor in reading comprehension will be required to pass English B (Reading Laboratory). No graduation credit is granted for either course.

All applicants who wish to study mathematics or engineering must take the mathematics placement examination. The results of this test, together with other factors, will determine the placement level in the Division of Engineering (see page 42). Students who are placed in Pre-Engineering will necessarily take a longer time to complete their program.

All applicants for admission to the Division of Management, except those who present an official transcript showing successful completion of a year's work in college mathematics are required to take the Division of Management's mathematics placement examination. Failure to qualify on this examination will necessitate the student's completing satisfactorily either one or two semesters of Management Mathematics before being permitted to register for any course beyond the first-year courses in the Division of Management. No graduation credit is given for these courses.

Acceptance of Application — Students accepted for admission will be notified of their acceptance. Each applicant is required to pay the first payment of his tuition, which amounts to \$6.25 per 2½ semester hour subject.* This fee is due on or before September 7 for the fall semester, on or before January 23 for the spring semester, and on or before June 10 for the 1950 summer term. It will be refunded to any applicant who is not accepted.

† It is highly desirable that applicants for admission present a transcript of previous education at the time of interview.

* This fee is not required of Veterans who have submitted Certificates of Eligibility or approval for training under Public Law 16 by the dates indicated.

Early application for admission is desirable inasmuch as it gives ample time in which to secure and evaluate academic records, administer entrance tests, and complete other arrangements.

Assignment to Classes — The class schedule of each new student will be prepared and available following the admission and placement examinations. No schedules will be issued to a student until he has made his first tuition payment (or submitted his Certificate of Eligibility).

Re-Registration for Second Semester Courses

Students continuing into the second semester of courses immediately subsequent to completion of the first semester are required to re-register by filling out the proper card which is obtainable at the College office. The card is due before the closing date for registration for the semester, and first tuition payment must be made (see calendar) in order to have completed re-registration. Unless students are otherwise notified, they continue with the same schedule they had in the first semester. When changes in schedule are necessitated, each student will be provided with a revised schedule.

Failure to complete re-registration by the announced dates results in a late fee of \$2.00.

Re-Registration of Students Who Interrupted Their Attendance

Students who were once enrolled in the College and who are returning following a summer vacation or following withdrawal are required to re-register before the date indicated in the calendar. Class schedules assigning specific sections will be prepared by the College for each re-registrant. The schedule will be available after first tuition payment is made.

Transfer of Credit

In accordance with the usual practice among institutions of higher learning, transfer of credit from this College to another institution will be determined by the other institution in terms of the achievement and promise of the individual seeking transfer. The institution to which transfer is being made will also evaluate specific courses in terms of their length and content in relation to its specific requirements. New Haven YMCA Junior College is an accredited institution and its credits will be given consideration by the major institutions of the country in terms of the conditions outlined above.

Scholastic Regulations

Subject Load — A student may carry from one to six subjects (2½ to 15 semester hours) concurrently, depending upon the number of hours he is employed and his individual desires. If he is working full-time, he may not carry more than three subjects (7½ semester hours) without special permission. The same academic standards are expected of a student regardless of the subject load he is carrying.

Grading System — The following grading system is in use, and except where otherwise specified, applies both to examinations and to term work. The weight of a final examination grade is a matter individually determined by each instructor.

- A Superior
- B Good
- C Fair
- D Lowest passing grade
- F Failure

Inc. Incomplete. This grade is used to indicate that a student, who has otherwise done satisfactory work, has been unable, due to extenuating circumstances, to complete work that is capable of being made up. In order to remove the "incomplete", such work must be made up before the first day of the following semester. Otherwise the "Inc." remains on the record, no credit is given for the course and it must be repeated before further work for which it is prerequisite may be taken.

Wd. Withdrawal. This grade indicates: (1) that the student withdrew prior to the midpoint of the semester, (2) that the student's work was satisfactory at the time of withdrawal if the withdrawal was after the midpoint of the semester.

WF This grade indicates withdrawal after midpoint in the semester with unsatisfactory work.

X This grade indicates absence from the final examination although term work is passing. When extenuating circumstances have prevented a student from taking a final examination, it must be made up before the first day of the next semester upon request and upon payment of the fee for make-up examination. If the make-up examination is not taken at the appropriate time the "X" remains on the record, no credit is given for the course, and it must be repeated before further work for which it is prerequisite may be taken.

Grade Reports — Reports of the final grade in each subject will be mailed to the student soon after the close of each semester. The same report will be mailed to employers in those instances where the student has given his approval.

Placement on Academic Probation — The academic standing of each student will be determined on the basis of his Quality Point Ratio each semester. Academic grades are given the following Quality Point values as a basis for determining the Quality Point Ratio:

- A 4 Q.P.'s for each $2\frac{1}{2}$ semester hours per course
- B 3 Q.P.'s for each $2\frac{1}{2}$ semester hours per course
- C 2 Q.P.'s for each $2\frac{1}{2}$ semester hours per course
- D 1 Q.P. for each $2\frac{1}{2}$ semester hours per course
- F 0 Q.P.'s for each $2\frac{1}{2}$ semester hours per course

The Quality Point Ratio will be obtained by dividing the total Quality Points each semester by the number of $2\frac{1}{2}$ semester hour courses carried during the semester.

Example: John Doe earns C in Math C-D (a five semester hour course). The value of C is 2 Q.P.'s, and a 5 semester hour course is equivalent to two $2\frac{1}{2}$ semester hour courses. $2 \times 2 = 4$ Q.P.'s earned in Math C-D. He also earned B in English 13 ($2\frac{1}{2}$ semester hours). The value of B is 3, and English 13 is one $2\frac{1}{2}$ semester hour course. $3 \times 1 = 3$ Q.P.'s earned in English 13. 4 Math Q.P.'s plus 3 English Q.P.'s = 7 Q.P.'s earned by Doe. The total program was equal to three $2\frac{1}{2}$ semester hour courses. His Quality Point Ratio is therefore 7 divided by 3, or 2.3 for the semester.

The Quality Point Ratios required to be in good academic standing are as follows:

During the first and second semester of enrollment in the College, a Quality Point Ratio of 1.5 is required.

After the student is enrolled in the third semester, a Quality Point Ratio of 1.6 is required.

Failure to earn the required Quality Point Ratio in any semester will place a student on academic probation for the following semester of enrollment.

Grades earned during a summer session will neither place a student on probation nor remove him from probation. Summer session grades will be averaged with grades earned in the next semester of enrollment and the student's status will be determined at that time.

Removal of Probation or Dismissal for Academic Deficiency—

1. A student who has been placed on probation and who does not earn the required Quality Point Ratio in the next semester will be dismissed from the division of the College in which he is enrolled.

2. A student who has twice been on probation will be dismissed from the division of the College in which he is enrolled the next time his Quality Point Ratio for any semester falls below the required minimum.

3. A student whose Quality Point Ratio in any one semester is less than 1.0 will be dismissed from the division of the College in which he is enrolled.

Readmission — Applications for readmissions to the Division of the College from which a student has been dismissed, and application for admission to this College following dismissal from another college, will be considered only after the lapse of a semester and only when the student provides evidence which indicates his probable success if readmitted.

Requests for readmission should be submitted in writing to the Director of Instruction at least three weeks before the opening of the semester and

should include evidence supporting the student's belief that he may succeed if readmitted.

Placement on Honors List — Students who earn a Quality Point Ratio of 3.6, or better, in any one semester will be placed on the Honors List for that semester. Determination of the Quality Point Ratio is made in the same manner as is described for placement on probation.

Academic Standard Required for Degree — In addition to meeting the specific course sequences required for graduation which are discussed on pages 18 and 19, a Quality Point Ratio of 2.0 for the program as a whole is required for graduation.

Degree With Honors —

A degree with honors is awarded to students who have a Quality Point Ratio of 3.33 for the entire sixty semester hours specifically required for the degree program from which they are being graduated, and who have taken all the required work at this College.

Transfer students will be awarded honor diplomas on the same Quality Point Ratio, provided, however, that their total average will be considered only when they have an honor average for studies completed at this College.

Degree With High Honors —

A degree with high honors is awarded to students who have a Quality Point Ratio of 3.6 based on the same considerations as noted above.

In determining eligibility for degrees with honors credits earned by crediting examinations, and electives in excess of those required will not be considered. The grades for any subjects which have been repeated will be the average of grades earned in those subjects.

Exceptions — The foregoing statements of policy may be modified by joint action of the Chairman of the Division, the Committee on Academic Standing and the Faculty Advisory Committee in order to allow for exceptional circumstances.

Attendance Regulations — The College does not recognize excused absences and such a thing as a "free cut" does not exist. Classes are operated on the policy that it is necessary for all students to attend all class meetings. If a class is missed, the benefits from participation in the class discussion and instruction are completely lost. We feel that no student, regardless of ability, can afford that loss.

However, it is recognized that illness, unforeseen job commitments and other reasons beyond the control of the student will make it impossible for every student to attend every class meeting. Therefore, the following regulations are in effect:

1. Any student whose accumulated absences equal twenty per cent of the total possible class meetings in any course per semester, whether those

absences are consecutive or intermittent and regardless of reason, will receive notification that he is being dropped from the particular class involved upon the occurrence of one more absence.

2. Should one more absence from a given class occur, the student will automatically be dropped from that class roster and the instructor and student so notified. In the case of a veteran, the Veterans Administration will also be notified.

3. After being dropped, the student may apply to a member of the administrative staff for reinstatement, the responsibility for application being entirely his. This application, furthermore, must be immediate. The purpose of this regulation pertaining to reinstatement is to permit the consideration of exceptional cases, but for the majority, reinstatement will not be considered.

Veterans

New Haven YMCA Junior College is approved by the Veterans Administration for the education of veterans under the terms of both Public Law 16 (the Vocational Rehabilitation Act) and Public Law 346 (the Servicemen's Readjustment Act, commonly known as the G. I. Bill). Since the first veteran enrolled in the College in July 1944, large numbers of veterans have enrolled in the College. Currently, veterans account for nearly sixty per cent of the total enrollment.

In view of the fact that the full evening program of the College is approximately a half-time program, veterans attending evening classes have approximately twice the time for education for which they are eligible in a full time program. Those enrolled in a full time program naturally will be using their eligibility at the full rate.

Public Law 346 (GI Bill) — The Veterans Administration will defray the cost of tuition, fees, books and supplies of veterans studying at the College under the provisions of Public Law 346. In addition, subsistence allowances are payable, the amount being determined on the basis of (1) the number of semester hours of course work being carried in the College, (2) the veteran's monthly income from productive labor, and (3) the number of the veteran's dependents.

Veterans should apply to the Veterans Administration for their Certificate of Eligibility well in advance of their anticipated registration at the College. The Certificate of Eligibility should be endorsed and presented to the College at the time of registration. If it is not presented at the time of registration, a veteran will be expected to meet all financial obligations in the same manner as other students until such time as it is presented. When it is not presented until after the veteran has made payments to the College, his payments will be refunded to him, provided that the Certificate covers the period for which payments were made.

When the veteran wishes to study at the College and has submitted his Certificate of Eligibility to an employer for on-the-job training prior to enrollment at the College, both the veteran and the employer must write the Veterans Administration requesting an Authorization for Related

Training. The Authorization, when received by the veteran, must be presented to the College.

Public Law 16 — Under the provisions of P.L. 16 the Veterans Administration will assume responsibility for expenses only if the courses the veteran wishes to take at the College are related to the on-the-job-training on which he has been placed by the Veterans Administration, and only when his program of study has the approval of the Veterans Administration. A person desiring to study at the College under P.L. 16 should, at the time of registration, present the College with a letter from the Veterans Administration stating he is engaged in on-the-job-training, and naming his vocational objective. The letter should indicate that the supplemental training at the College meets with the approval of the Veterans Administration. Unless these conditions are met, the veteran must assume financial obligations in the same way as any other student.

Admission Requirements — Veterans are required to meet the same admission standards as all other students.

Counseling — Although the Director of Student Personnel is the official designated to handle veteran's problems, each member of the administrative staff is available and prepared to discuss problems with veterans. Appointments may be made at the office of the College, Room 114, Winchester Hall.

Withdrawal — If a veteran wishes to withdraw from the College he should discuss it with a member of the College staff in addition to obtaining the permission of the Veterans Administration prior to officially withdrawing. Then he should execute both the College's "Drop Out" form and the official form which is required by the Veterans Administration. The forms are available in the College office.

Change of Course — If a veteran, once having undertaken a specific program at the College, desires to change his program to a new objective, he must obtain the prior approval of the chairman of the division of the college to which he wishes to transfer.

Book, Supplies and Equipment — Each veteran will purchase the books, supplies and equipment required for the courses in which he is enrolled, and will present his receipts to the College. At the end of each semester the amount indicated by the receipts will be refunded to the veteran, provided it does not exceed the cost of such items as are regularly required by the instructor in his classes, and provided the cost does not exceed the maximum allowable by Veterans Administration regulations.

Student Activities

Student Council — A Student Council of twenty members, proportionally representative of the three Divisions of the College, is elected annually by the student body. The Council bears the responsibility for initiating, organ-

izing and carrying through extra-curricular activities, of performing liaison functions between students and the college staff, and of participating in the activities of the National Student Association. The major work of the Council is performed through its four standing committees: Student-Faculty Relations, Social, Athletic and Orientation.

The Society for the Advancement of Management (Student Chapter) —

"The Society for the Advancement of Management is the recognized professional society of management people in industry, commerce, government and education." The student chapter at the College is under the sponsorship of the New Haven Chapter of the national organization which assists in planning the activities of the student chapter and welcomes members of the student chapter to its meetings. Membership in the student chapter is open to students enrolled in the Management Division of the College and to other students whose employment is in the management area and who are carrying courses in the Management Division.

The Engineering Society — The Engineering Society of the College is chartered as a student chapter of the American Association of Engineers which has as its aims "to promote the social and economic welfare of engineers, to stimulate public service in the profession, to encourage and develop the efficiency of the engineer, and to promote unity in the profession."

The activities of the society include lectures, discussions and field trips designed to stimulate interest in the field of engineering and to supplement formal study.

Full membership is open to engineering graduates, and to undergraduates who are enrolled in second year engineering mathematics. Students who are fully matriculated as freshmen in engineering may hold associate membership.

The Business Association — The Business Association is an organization of graduates and undergraduates in the Division of Business. Its purposes are to create current and active relationship between undergraduates and graduates, to disseminate job opportunity information among its members and to keep its members alert to current trends of thought in the field of business by means of visitations, guest speakers and reviews of current literature.

Athletic Activities — Under the leadership of the Student Council and the sponsorship of a member of the College staff, intramural competition is organized in basketball, bowling, baseball, golf and tennis.

Y.M.C.A. Privileges — Every male student enrolled in the College is granted free use of the facilities of New Haven Y.M.C.A. during his period of enrollment. He may participate in group sports conducted there under the supervision of a member of the College staff, or he may individually use the privileges at times convenient to him.

Each student who wishes to use the Y.M.C.A. must obtain an identification card at the College office and present it at the Y.M.C.A. After satisfying

the physical examination requirements he may continue to take advantage of his privileges so long as he remains enrolled in the College.

Student Newspaper — *The News* is a monthly newspaper edited and published by the student group. Any student who so desires may volunteer his services on the newspaper staff.

Policy Board of the News — The Board is charged with the responsibility of electing the editor and associate editor of *The News*; of establishing, defining and executing policies relating to the purpose, function, coverage, circulation and the selection of articles for publication.

Membership on the board consists of three members of *The News* staff, two members of the Student Council and the faculty advisor of each of the two groups.

Tuition Loan Fund — The College has been the recipient of gifts from individuals interested in assisting students. Some of these gifts have been especially designated as revolving loan funds.

The purpose of the loan fund is to assist students who have attended the College for at least one semester to meet tuition costs. A limited portion, however, is available for students entering the College for the first time. The fund is administered by a committee of the faculty in accordance with policies established by the Board of Governors of the College.

Applications for this assistance should be made to the Director.

Scholarships — A limited number of scholarships, amounting to approximately one-half of the tuition are available each year. These are awarded by the Scholarship Committee on the basis of the qualifications presented. Scholastic attainment, ability to profit from the course, and financial need are taken into consideration.

Application should be made well in advance of the beginning of the College year. Application forms may be secured from the College office.

In addition to general scholarships, certain special scholarships are available: Foremen's Club Scholarships, Alumni Scholarships, Board of Governors Scholarships, Faculty Scholarships.

Alumni Association — The alumni of the College are organized into a very active group which holds regular dinner meetings, elects a representative to the Board of Governors of the College, participates in commencement activities, and encourages academic scholarship among the students.

Placement Service

The College receives requests from both students and employers for job placement services. Although the College does not conceive its function to be that of a public employment service, it is interested in and prepared to render placement service within the limitations of its purposes and



TESTING AND COUNSELING

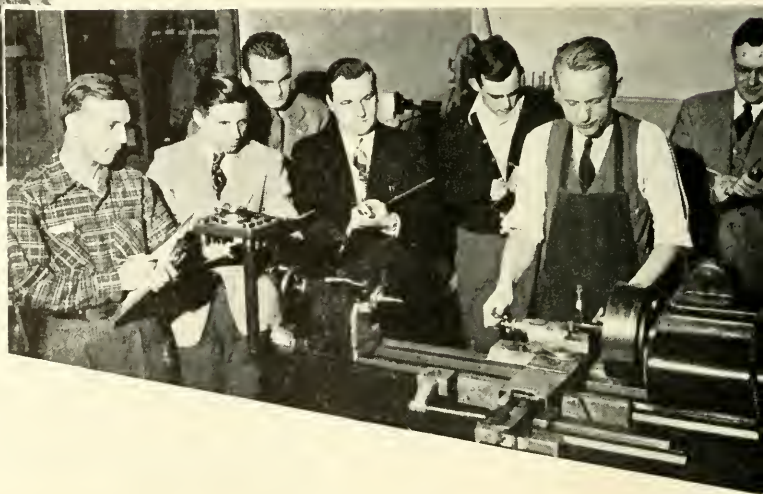


GETTING ACQUAINTED





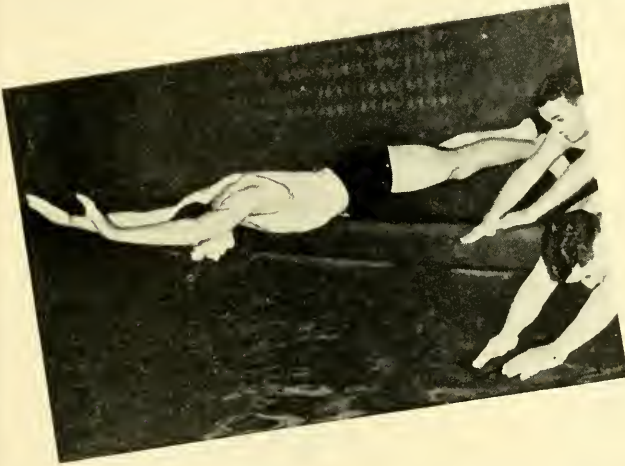
LAB PROBLEM



— AND IN CLASS



ACTIVITIES —



IN THE SWIM

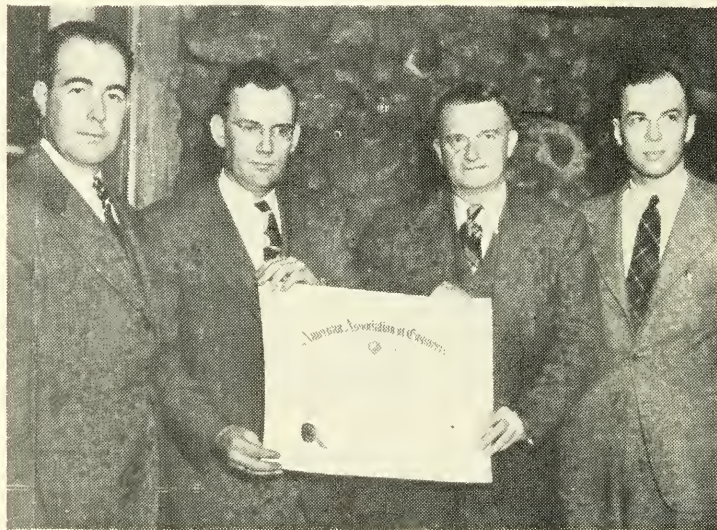
HOLLY HOP





TRADITION:
Alumni Lantern Lighting

STUDENT-ALUMNI
Professional
Organization



ALUMNI
EXECUTIV
COMMITTEE



resources. It acts as a medium of exchange of information between students and former students who desire placement, and employers seeking personnel. It is particularly interested in helping students find positions which require college study or which lead to positions that require such education.

How the Placement Service Operates—

1. For present or former students who are unemployed.

When a present or former student who is unemployed seeks placement, the College will notify potential employers of his availability.

2. For present or former students who are employed.

When an employed student or former student requests placement service, the College encourages the student to talk with his company coordinator concerning the possibilities within his own company. Since the College has a very close working relationship with certain companies through their participation in its development program under Employee Training Agreements, it is in an especially favorable position to discuss the student's case with the coordinators of these companies. It is only after the College is convinced that the best interests of the student will be served that it will undertake placement services for the student who is already employed.

3. In handling requests from companies.

When a company requests the College to recommend students to fill a position, it will, if possible, refer qualified students to the company after having followed the procedure outlined above. It cannot undertake to search for applicants outside of the group who have indicated their desire for placement.

4. For students desiring placement.

A student or former student in the Business Division of the College who desires placement should call by telephone or in person to make an appointment with the Director of Instruction of the College to discuss the placement problem.

A student or former student in either the Engineering Division or the Management Division of the College should make an appointment to discuss the placement problem with a member of the staff of the Industrial Coordinator of the College.

5. For companies wishing to use the placement facilities of the College.

A company wishing to use the placement facilities of the College should list the job and the desired qualifications with the Director of Instruction of the College, if the job calls for a Business Division student, or with the Assistant to the Industrial Coordinator, if the job calls for an Engineering or Management Division student.

Tuition and Fees

*APPLICATION FEE \$ 3.00

Required only of students registering for the first time.

LATE FEE 2.00

Required of *all* students registering after close of registration period; and

Required of all students, *each semester*, not making first tuition payment by designated date (See dates below).

TUITION — per 2½-semester-hour course per semester 25.00
(equivalent to \$10 per semester hour)

STUDENT ACTIVITIES FEE—per semester 1.00

DEFERRED TUITION CHARGE — per semester 1.00

MAKE-UP EXAMINATION 5.00

CREDITING EXAMINATION 10.00

DIPLOMA FEE 10.00

*FIRST TUITION PAYMENT (See below) per subject 6.25

Schedule of Tuition Payment Dates

Cash Plan:

Tuition and fees for fall and spring semesters are as follows:

	7½ sem. hrs.	5 sem. hrs.	2½ sem. hrs.
Due on or before September 7, January 23	\$18.75*	\$12.50*	\$ 6.25*
Due on or before October 10, February 27	57.25***	38.50***	19.75***
	\$76.00	\$51.00	\$26.00

Deferred Plan:

Tuition and fees are payable on the deferred plan as follows:

Fall 1949	Spring 1950	7½ sem. hrs.	5 sem. hrs.	2½ sem. hrs.
September 7	January 23	\$18.75*	\$12.50*	\$ 6.25*
October 10	February 27	20.75**	14.50**	8.25**
November 7	March 20	18.75	12.50	6.25
December 5	May 1	18.75	12.50	6.25
		\$77.00	\$52.00	\$27.00

Tuition and fees for Summer 1950:

Cash Plan:

	5 sem. hrs.	2½ sem. hrs.
Due on or before June 10	\$16.50*	\$ 8.25*
Due on or before July 10	34.50***	17.75***
	\$51.00	\$26.00

Deferred Plan:

June 10	\$16.50*	\$ 8.25*
July 10	19.00**	10.50**
August 7	16.50*	8.25
	\$52.00	\$27.00

Return of Fees and Tuition

The fees are refundable only to those who are refused admission to the College on the basis of scholastic qualifications.

In the event a student withdraws from college prior to the end of the semester, his tuition charges are based on the *deferred plan*. He is charged only those payments due at the time of withdrawal. If he has paid full tuition according to the *cash plan*, he receives a refund of the difference between his cash payment and the amount due on the deferred plan.

* Not refundable.

** Includes deferred payment charge and student activities fee.

*** Includes student activities fee.

Division of Business



The Division of Business offers five major programs leading to the degree of Associate in Science. These programs are: Business Administration, Public Accounting, Industrial Accounting, Office Supervision and Management, and Sales and Marketing. Complete descriptions of each of these programs in the Division of Business will be found on pages 36 to 40.

Students not desiring to take a complete program leading to the Associate in Science degree may study individual courses within any of the programs. Courses having prerequisites must, however, have those prerequisites satisfied before such students are permitted entrance to them. Satisfaction of these prerequisites may be in the form of previous formal educational training, evidence of commensurate practical experience, or by means of a qualifying examination.

Instruction in the major subjects of business activity is carried on by personnel actively engaged in their respective fields. Thus a large degree of practicability, as well as theory, is present in all programs. In addition, classroom situations and standards of achievement are those commensurate with the business world. As a result students are prepared upon completion of study to take positions of responsibility in the field of their choice.

Business Administration

The program in Business Administration offers an opportunity to study principles of business administration in a broad and systematic manner. Those students who have not yet made a specific choice in the field of business will find the first year of this program adaptable to any of the other programs in the Division of Business should they desire to change to one of those programs after the first year. The student who is in a business of his own or who will become the administrative head of a business will find the broad treatment of business subjects commensurate with his desires. The student who is employed by a business or industry in a general administrative capacity has an opportunity for preparation for advancement to a junior executive position within that business.

The selection of elective courses in the latter part of the program serves two purposes. The student may elect to broaden his education by the choice of courses remote from the field of business or he may elect to specialize in accounting, personnel management, industrial organization, sales, office management, etc.

The Seminar presents an opportunity for individual research and study. Exchange of thoughts and ideas with other students in the seminar and with the instructor provides an approach to the solution of the problem from different points of view.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Introductory Accounting (A 11-12) Psychology (P 23-24) English (E 13-14)	Introductory Accounting (A 11-12) Psychology (P 23-24) English (E 13-14)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Modern Civilization (Soc 13-14) Business Finance (BA 21-22) Modern Science (S 11-12)	Law of Contracts and Business Associations (L 11-12) Business Finance (BA 21-22) Modern Science (S 11-12)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Law of Contracts and Business Associations (L 11-12) Public Relations (BA 31-32) Economics (Ec 33-34)	Seminar (BA 41-42) Public Relations (BA 31-32) Elective
	Summer		Elective
4	Fall and Spring	Seminar (BA 41-42) Elective Elective	

Public Accounting

The program in Public Accounting has as its primary objective the preparation of the student for a career in public accounting, either as an employee of a public accounting firm or for individual private practice. The student has the opportunity to satisfy the educational requirements and preparation necessary for the taking of the CPA examinations (Connecticut). If the three year apprenticeship training with a public accountant (necessary for eligibility to take the CPA examination) is taken simultaneously with his educational training, the student is ready to take the CPA examination immediately after graduation.

Those students who do not wish to enter the public accounting field will find themselves adequately prepared for general accounting positions in business or industry. Provision for an elective course in the senior year permits the student to acquire further training in any specific field.

Assuming no previous training in accounting prior to entering the program, the student in his second year will be prepared to take beginning accounting jobs in public accounting, business, or industry. It is not necessary for the student to wait until graduation in order to begin his practical accounting career.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Introductory Accounting (A 11-12) Law of Contracts and Business Associations (L 11-12) English (E 13-14)	Introductory Accounting (A 11-12) Law of Contracts and Business Associations (L 11-12) English (E 13-14)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Modern Civilization (Soc 13-14) Intermediate Accounting (A 21-22) Cost Accounting (A 23-24)	Law of Sales (L 21) Law of Commercial Paper (L 22) Cost Accounting (A 23-24) Intermediate Accounting (A 21-22)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Law of Sales (L 21) Law of Commercial Paper (L 22) Advanced Accounting (A 31-32) Auditing (A 33-34)	Income Tax Procedure (A 41-42) Advanced Accounting (A 31-32) Auditing (A 33-34)
	Summer		Elective
4	Fall and Spring	Income Tax Procedure (A 41-42) Economics (Ec 33-34) Elective	

Industrial Accounting

The program in Industrial Accounting is designed for those students of accounting who wish to specialize in cost work. It is for the student who is or who will be employed by an industry in its cost accounting department. As a corollary to his cost and general accounting training, the student is introduced to the principles of factory operation and production methods so that he will be better able to seek out and understand and then apply cost factors of a given product in the determination of its cost and selling value.

Adequate provision is made for electives in this program. The student may elect to study additional accounting courses in order to prepare himself for positions in the general accounting department of the industry as well as the cost department, or he may elect subjects in the fields of management and supervision or any other specific field in which he has an interest. Finally, his choice of electives may include subjects such as science and mathematics. In the choice of an elective subject, the student is limited only by his ability to qualify for that given subject in view of previous educational or practical experience.

As in Public Accounting, the student is prepared to take a position in industry at the beginning of his second year.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Introductory Accounting (A 11-12) English (E 13-14) Industrial Organization and Management (IA 11-12)	Introductory Accounting (A 11-12) English (E 13-14) Industrial Organization and Management (IA 11-12)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Mechanical Processes (EM 23) Engineering Materials (EM 26) Intermediate Accounting (A 21-22) Cost Accounting (A 23-24)	Mechanical Processes (EM 23) Engineering Materials (EM 26) Intermediate Accounting (A 21-22) Cost Accounting (A 23-24)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Methods and Costs (PS 21) Fundamentals of Supervision (PS 22) or *Management Statistics (IA 35) Quality Control (IA 36) Modern Civilization (Soc 13-14) Advanced Accounting (A 31-32)	Methods and Costs (PS 21) Fundamentals of Supervision (PS 22) or *Management Statistics (IA 35) Quality Control (IA 36) Advanced Accounting (A 31-32) Elective
	Summer		Elective
4	Fall and Spring	Economics (Ec 33-34) Elective Elective	

* Students anticipating the election of Management Statistics should acquaint themselves with the prerequisites as found on page ??.

Sales and Marketing

The program in Sales and Marketing has been designed primarily for two types of students. One is the student who has had no previous experience in selling but is desirous of entering that field. Since the program begins immediately with techniques of selling and psychology, it thus supplements any job experience in selling that the student may acquire. The other type of student is one who has had experience in selling or is employed in that field. The program will train him for positions of greater responsibility and offers adequate preparation for positions at the junior executive level.

The student with sales experience, not desirous of taking the full program for the degree of Associate in Science, may take individual courses at any level for which he can qualify either through previous formal education or by commensurate practical experience.

The provision for electives in the senior year offers a wide range of course selection. This may be either in a specialized field or a broad field, depending on the student's interest.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	English (E 13-14) Psychology (P 23-24) Principles of Selling (SM 11-12)	English (E 13-14) Psychology (P 23-24) Principles of Selling (SM 11-12)
	Summer		Introductory Accounting (A 11-12)
2	Fall and Spring	Marketing and Market Analysis (SM 23-24) Introductory Accounting (A 11-12) Economics (Ec 33-34)	Marketing and Market Analysis (SM 23-24) Public Relations (BA 31-32) Elective
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Advertising and Sales Promotion (SM 33-34) Law of Contracts and Business Associations (L 11-12) Public Relations (BA 31-32)	Advertising and Sales Promotion (SM 33-34) Law of Contracts and Business Associations (L 11-12) Sales Administration and Management (SM 43-44)
	Summer		Elective
4	Fall and Spring	Sales Administration and Management (SM 43-44) Elective Elective	

Office Supervision and Management

The program in Office Supervision and Management is mainly designed for those students employed in office positions who wish to prepare themselves for supervisory positions within the office organization. The program has as a further objective preparation for the position of office manager.

As in other programs in the Division of Business, students not desiring to take the complete program leading to the Associate in Science degree may study only those courses for which they have a desire and interest and for which they have the prerequisites either by virtue of previous educational training or commensurate practical experience.

Provision for elective courses permits specialization within a given field, such as accounting or sales, or it permits the study of more general courses. Those students in the Seminar who wish to do research in personnel problems are recommended to take the Personnel Seminar, substituting a one semester course for the first half of the year in which the Personnel Seminar is scheduled (See Personnel Administration program).

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Psychology (P 23-24) English (E 13-14) Office Organization and Management (OM 11-12)	Psychology (P 23-24) English (E 13-14) Office Organization and Management (OM 11-12)
	Summer		Introductory Accounting (A 11-12)
2	Fall and Spring	Introductory Accounting (A 11-12) Personnel Administration (PS 23-24) Modern Civilization (Soc 13-14)	Management-Labor Relations (PS 41) Fundamentals of Supervision (PS 22) Personnel Administration (PS 23-24) Modern Civilization (Soc 13-14)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Management-Labor Relations (PS 41) Fundamentals of Supervision (PS 22) Economics (Ec 33-34) Elective	Seminar (OM 41-42) Public Relations (BA 31-32) Elective
	Summer		Elective
4	Fall and Spring	Seminar (OM 41-42) Public Relations (BA 31-32) Elective	

Division of Engineering

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The Division of Engineering includes three departments offering six programs of study in the three major fields of engineering: Electrical, Mechanical and Materials.

The individual programs are specialized and concentrated endeavors to present to the student the fundamental background in engineering information, thinking and analysis in order that he may learn how to approach and solve the general types of engineering problems in his field. The programs are developed on the basis of standard four-year programs, streamlined and concentrated to the essential courses required for the educational objectives above and consistent with the shorter time available. Only by taking full advantage of work-study coordination can these objectives be fully realized.

Students enrolling in the Engineering Division are fortunate in having for their use the laboratory facilities of Yale University. Classes are held in Dunham Laboratory of Electrical Engineering, Sloane Physics Laboratory, Mason Mechanical Engineering Laboratory, Hammond Metallurgical Laboratory, Sterling Chemistry Laboratory and Sheffield Laboratory of Engineering Mechanics. These facilities make it possible to offer advanced students in this division courses that are generally given in the junior and senior years of a four-year engineering program.

Organization — The courses in the Division of Engineering are on three levels: Pre-Engineering, General and Specialized. A student is placed initially at the level on which his abilities and knowledge indicate he will profit most, and he is then expected to show satisfactory performance in order to progress to the next level.

Description of Levels — **PRE-ENGINEERING** is designed for students who are interested in studying Engineering, but whose background or knowledge is not yet sufficient for General Engineering. Students at this level study first "Fundamental Mathematics", Mathematics A-B and C-D (see page 65), and are registered as "pre-college students" in the Division of General Studies until they have matriculated in the Division of Engineering.

GENERAL ENGINEERING is the general training which is common to, and essential for, all the later specialized branches of Engineering. It consists of courses in Mathematics (13-14) and Physics (11-12), which may be taken *only* if a student has matriculated in the Division of Engineering.

SPECIALIZED ENGINEERING is the highest level where a student elects to study one of the specialized curricula in Electrical Power, Electrical Communication, Mechanical Design, Tool Design, Metallic Materials, or Non-Metallic Materials. The Associate in Science degree is awarded upon the successful completion of the work at this level.

Admission to Levels — The level placement of each student is made on the basis of his particular background, knowledge, aptitude, and any other evidence that is available. Because there are these various factors involved, *no absolute requirements* can be given. The following guides may be helpful, however, in approximating the level where he may be placed.

PRE-ENGINEERING is open to any student who is seriously interested in studying Engineering and who is capable of doing college work. *The work of the Pre-Engineering level is of an intensive nature, however, and experience has shown that only students with real aptitude for engineering are apt to succeed.*

GENERAL ENGINEERING is for those students who have matriculated in the Division of Engineering. Matriculation may be gained either upon admission or by satisfactory performance in Pre-Engineering.

Matriculation upon Admission is determined by a combination of factors, of which the following are most important:

a. Actual working *knowledge* of the fundamentals of arithmetic, algebra and geometry—as demonstrated by performance on the Mathematics Placement Test. Having once studied the above subjects in high school does not assure that one currently possesses the necessary knowledge. On the other hand, such knowledge can be gained on one's own by self-study, through learning on the job, training while in service, etc. Hence, the Placement Test is administered to determine present knowledge, however gained.

b. *Aptitude* for engineering—especially the ability to think quantitatively, manipulate symbols, analyze, and draw deductions. Such traits are considered in the Psychological Test for admission, and a better than average performance is expected for General Engineering.

c. High school *preparation* in mathematics. This should include college-preparation courses in algebra, plane geometry, intermediate algebra, and trigonometry, in preference to shop mathematics, practical mathematics, applied mathematics, etc. The grades should have at least averaged "C" or better. A student having less than three years of college-preparatory mathematics or very poor marks will probably be placed in Pre-Engineering.

Matriculation from Pre-Engineering is not automatic but is determined by a combination of

a. *Knowledge* of fundamentals, as demonstrated by an examination comparable to (a) above.

b. *Aptitude* for Engineering, similar to (b) above.

c. *Satisfactory grades* in Pre-Engineering courses, ordinarily "C" or better. Most students who eventually matriculate in General Engineering received "A" or "B" in Mathematics A-B, and "C" or better in Mathematics C-D.

SPECIALIZED ENGINEERING is ordinarily open only to those who have satisfactorily completed the courses in General Engineering. Students with grades below "C" usually experience difficulty if they do go on, and are advised to reconsider seriously engineering as their objective in the College.

Electrical Communications Engineering

The objective of this program is to give a thorough grounding in the principles underlying the general field of electrical communication.

The course in Electric and Magnetic Circuits is designed to give a thorough background in basic concepts, as well as a brief survey over the field of Electrical Engineering in general. A course on Electrical Metering, conducted concurrently, should prove immediately advantageous to those employed in the electrical industry. The course in A-C Circuits in the junior year will lay the foundation for more advanced work in the circuits field, such as the Communications Circuits course in the senior year. The Elementary Electronics course will provide a background in the specialized subject of electronics, and will be supplemented by a special Electronics Laboratory course, conducted concurrently. Thus, the Advanced Electronics course is built on a sound foundation and will permit the treatment of more complicated electronic apparatus, operating at higher frequencies.

The addition of the Electronics Laboratory course and of Advanced Electronics to the communications program previously offered is recognition of the growing demand for more advanced and specialized training. This program is designed for students engaged in technical work in the telephone, telegraph, radio or electronics industries.

General theory and technical application are spread throughout the entire program in a sequence which will permit a student to pursue his engineering education for one, two, three, or four years depending on the requirements of his present and expected future position.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	The three year program is not recommended for Electrical Communications
	Summer		
2	Fall and Spring	Electric and Magnetic Circuits (EE 23-24) Mathematics (21-22) Engineering Drawing (D 11) Electrical Metering (EE 26)	
	Summer		
3	Fall and Spring	AC Circuits (EE 31-32) Elementary Electronics (EE 43-44) Electronics Laboratory (EE 43L-44L)	
	Summer		
4	Fall and Spring	Communications Circuits (EE 45-46) Advanced Electronics (EE 47-48) Elective	

Electrical Power Engineering

The foremost objective of the Electrical Power Program is to provide a sound and thorough training in the fundamentals of electrical engineering necessary to a successful mastery of the problems met in the power field. To this end, the early portion of the program is devoted to training in written and oral expression and also to the basic science and mathematics essential to progress in electrical engineering. The latter portion of the program deals with technical courses, such as Electric and Magnetic Circuits, Electrical Metering, D-C Machines, and A-C Circuits. Some of these courses will attempt to survey the field of electrical engineering and to build a foundation for further technical study, while others will provide opportunity for technical study directly.

Courses added to the program previously offered are a separate course on D-C Machines and a course in Power Transmission. The first permits a fuller discussion of new developments of d-c machines than was possible previously, while the latter will provide understanding of the problems of transporting electrical energy and of circuit protection. Thus, this program should be particularly appealing to students presently employed in public utilities, electrical manufacture, industries utilizing electrical power equipment and industries producing power equipment.

Theoretical training and technical application are arranged in a sequence which will permit a student to study for one, two, three, or four years depending on the requirements of his present or intended position.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	The three year program in Electrical Power is not recommended
	Summer		
2	Fall and Spring	Electric and Magnetic Circuits (EE 23-24) Mathematics (M 21-22) Engineering Drawing (D 11) Electric Metering (EE 26)	
	Summer		
3	Fall and Spring	A.C. Circuits (EE 31-32) D.C. Machines (EE 35-36) Elective Elementary Electronics (EE 43-44) recommended	
	Summer		
4	Fall and Spring	Electric Power Transmission (EE 37-38) A.C. Machines (EE 41-42) Thermodynamics and Heat Power (Ph 31-32)	

Mechanical Design Engineering

To serve the needs of the numerous manufacturing industries in southern Connecticut, the design option of the mechanical engineering program provides training in the fundamental phases of the design and analysis of mechanical machinery and equipment and related subjects, such as manufacturing processes and engineering materials. It is intended for students who wish to learn the "why" and "how" of the various operations that are performed on the drawing board or in the shop. By this means a fundamental basis is provided for developing machine or equipment operators or clerical assistants into a design draftsman, a technical or production assistant, or a sales or service engineer.

The mechanical design option, like most engineering programs, is planned so as to give the student in his first year the knowledge of fundamentals in mathematics, science, and English needed for success in this profession. As the course progresses efforts are more and more directed at specific technological courses until in the final semesters the work is entirely technical in nature. Laboratory and demonstration work are introduced as found appropriate in connection with the subject matter being covered in the various courses.

The complete program is arranged in such a manner as to permit the studying of integrated units of one, two, three, or four years duration depending on the theoretical and technical needs of the student in relation to his present and future job requirements.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)
	Summer		Engineering Drawing (D 11-12)
2	Fall and Spring	Engineering Drawing (D 11-12) Mathematics (M 21-22) Mechanics (EM 21-22)	Mechanical Processes (EM 23) Engineering Materials (EM 26) Mathematics (M 21-22) Mechanics (EM 21-22)
	Summer		Strength of Materials (EM 31-32)
3	Fall and Spring	Mechanical Processes (EM 23) Engineering Materials (EM 26) Strength of Materials (EM 31-32) Mechanics of Machines (EM 33-34)	Elem. Machine Design (D 33-34) (Fall) Adv. Machine Design (D 41-42) (Spring) Mechanics of Machines (EM 33-34)
	Summer		Elective
4	Fall and Spring	Elem. Machine Design (D 33-34) (Fall) Adv. Machine Design (D 41-42) (Spring) Elective	

Tool Design Engineering

The tool design option of the mechanical engineering program was developed on the basis of the observations of technical educators and practicing mechanical engineers that a substantial portion of the mechanical engineering in manufacturing industries is concerned with "tooling up" for production. It is intended to provide the student with the fundamental basis for the design, selection and heat treatment of tools for a specific purpose and the analysis and planning of the use of tools in manufacturing processes. Here, a student employee, such as the tool room helper, may obtain the background for developing into a tool draftsman, a tool production engineer, an efficiency man for tooling methods, or a sales or service engineer for tool manufacturing concerns.

Combined with certain courses from the Management Division, this program can provide a background for process engineering and a basis for further study in industrial administration, particularly suited for those students who are interested in administrative positions requiring an engineering foundation. Such students are referred to the description of the Industrial Administration Program in the Management Division for further details.

It is possible for a student to study integrated units of one, two, three, or four years in length depending on the degree of theoretical and technical training required by the student's present or intended position.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)
	Summer		Engineering Drawing (D 11-12)
2	Fall and Spring	Engineering Drawing (D 11-12) Mathematics (M 21-22) Mechanics (EM 21-22)	Methods Engineering (IA 41-42) Mathematics (M 21-22) Mechanics (EM 21-22)
	Summer		Strength of Materials (EM 31-32)
3	Fall and Spring	Methods Engineering (IA 41-42) Strength of Materials (EM 31-32) Steels and Heat Treatment (Mt 41-42)	Elem. Machine Design (D 33-34) (Fall) Tool Design (D 45-46) (Spring) Steels and Heat Treatment (Mt 41-42)
	Summer		Elective
4	Fall and Spring	Elem. Machine Design (D 33-34) (Fall) Tool Design (D 45-46) (Spring) Elective	

Metallic Materials Engineering

The metals option of the materials engineering course was developed to assist the manifold industries utilizing metals in this area in training men or obtaining men trained in the fundamentals of the processing, properties and uses of metals, and the application of these fundamentals to typical problems in industry. Related engineering subjects, such as mechanics and strength of materials, which are essential in modern metallurgical operations, are also included. Graduates in this option should be equipped with the fundamental technical basis for starting in trouble shooting and technical control and development in the metal producing or fabricating industries.

This curriculum has been planned so as to give the student the fundamentals in those branches of engineering related to his major field. The courses in metallurgy are not taken until the fundamentals of engineering have been studied. This schedule is followed in order to make certain that students have the basic technical knowledge and the background of experience desired by the metallurgical industry. In view of the industrial opportunities offered to the metallurgical engineer in southern New England, students are advised to evaluate this program in terms of their own capabilities and capacity.

The sequence of courses are arranged in integrated units of one, two, three or four years in length. The student may study for whatever length of time he desires in order to meet the theoretical and technical requirements of his present or expected future position.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)
	Summer		Engineering Drawing (D 11-12)
2	Fall and Spring	Inorganic Chemistry (Ch 21-22) Mathematics (M 21-22) Mechanical Processes (EM 23) Engineering Materials (EM 26)	Inorganic Chemistry (Ch 21-22) Mathematics (M 21-22) Mechanical Processes (EM 23) Engineering Materials (EM 26)
	Summer		Elective
3	Fall and Spring	Mechanics (EM 21-22) Engineering Drawing (D 11-12) Non-ferrous Metallurgy (Mt 31-32)	Mechanics (EM 21-22) Steel and Heat Treatment (Mt 41-42) Non-ferrous Metallurgy (Mt 31-32)
	Summer		Strength of Materials (EM 31-32)
4	Fall and Spring	Strength of Materials (EM 31-32) Steel and Heat Treatment (Mt 41-42) Elective	

Non-Metallic Materials Engineering

Recent rapid strides in the development of the rubber and plastics industries in central and southern Connecticut have indicated a need for more individuals with a knowledge of the potential characteristics and variables involved in the processing and utilization of these materials. In addition a thorough grounding in engineering fundamentals and a useful command of oral and written English was stressed by the practical industrialist. The non-metals option of the materials engineering program is intended to meet those needs, and supply to such industries potential engineers for trouble shooting, technical control, and development.

While the metallic materials engineering program is proposed primarily for men and women employed in industries utilizing metallic materials for the most part, this program is organized so as to meet the needs of those working in industries where the non-metallic materials—plastics, rubber, and the like—are manufactured, processed, or fabricated. The first two years of both the metals and non-metals options are the same, being designed to give a fundamental engineering background. Specialized courses in this curriculum deal with the organic chemistry of non-metallic compounds as well as their fabrication and utilization.

This program is arranged in integrated units of theoretical and technical training. Consequently, the student may study for one, two, three, or four years depending on the degree of training required by his present or future position.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)
	Summer		Engineering Drawing (D 11-12)
2	Fall and Spring	Inorganic Chemistry (Ch 21-22) Mathematics (M 21-22) Mechanical Processes (EM 23) Engineering Material (EM 26)	Inorganic Chemistry (Ch 21-22) Mathematics (M 21-22) Mechanics (EM 31-32)
	Summer		Strength of Materials (EM 31-32)
3	Fall and Spring	Mechanics (EM 21-22) Engineering Drawing (D 11-12) Organic Chemistry (Ch 31-32)	Mechanical Processes (EM 23) Engineering Materials (EM 26) Elective Organic Chemistry (Ch 31-32)
	Summer		Plastics and Rubber (Ch 41-42)
4	Fall and Spring	Strength of Materials (EM 31-32) Plastics and Rubber (Ch 41-42) Elective	

Special Announcement

Industrial Electronics Program

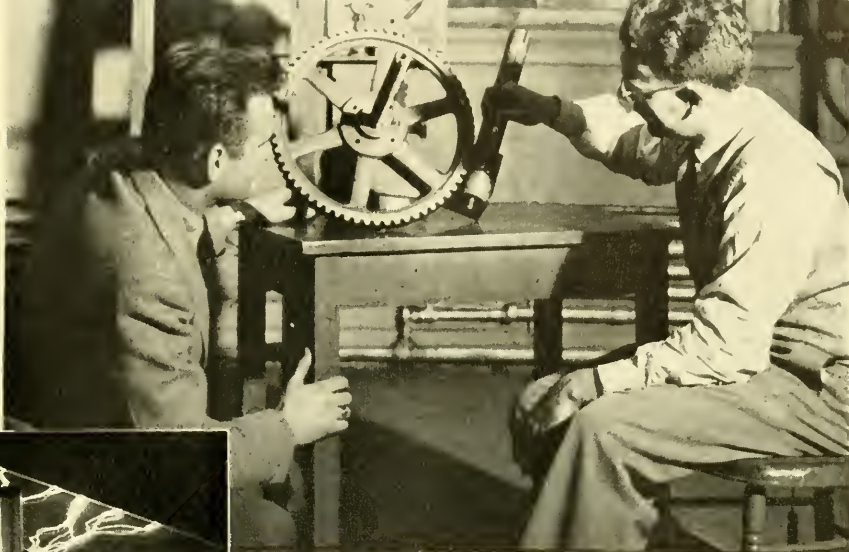
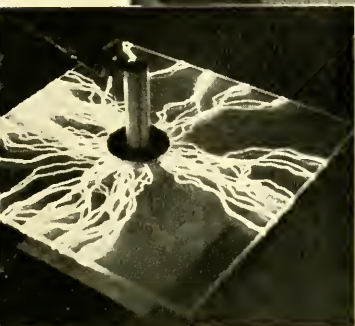
Since the printing of this catalog, it was decided to offer a program in Industrial Electronics. The description of that program is therefore presented in the form of an insert.

In addition to the study of preparatory engineering subjects such as physics and mathematics, a program in Industrial Electronics should include the study of electrical machinery as well as courses in electronics. The inclusion of AC and DC machines as well as elementary electronics with laboratory meets the basic needs for such a program. Further training in the electronics field is offered if the advanced electronics course is taken as the elective.

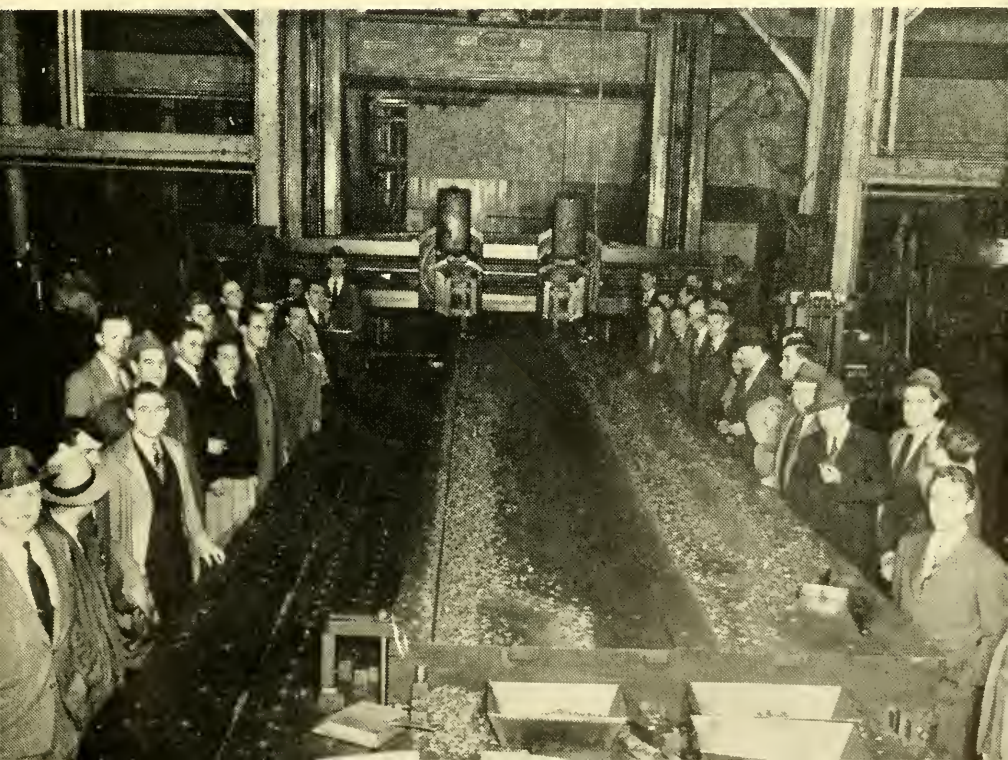
As in the other electrical engineering programs sequence has been arranged so that it is possible to study for one, two, three, or four years, depending on the needs of the individual student.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	Mathematics (M 13-14) English (E 13-14) Engineering Physics (Ph 11-12)	The three year program in Industrial Electronics is not recommended
	Summer		
2	Fall and Spring	Electric and Magnetic Circuits (EE 23-24) Mathematics (M 21-22) Engineering Drawing (D 11) Electrical Metering (EE 26)	
	Summer		
3	Fall and Spring	AC Circuits (EE 31-32) Elementary Electronics EE 43-44) Electronics Laboratory (EE 43L-44L)	
	Summer		
4	Fall and Spring	AC Machines (EE 41-42) DC Machines (EE 35-36) Elective (Advanced Electronics recommended)	
	Summer		

**MACHINE
DESIGN**



WHEELS IN ACTION





FROM INDUSTRY: Guest Speaker



**STUDENT CHAPTER
Society for the Advance-
ment of Management**



**LEET OLIVER HALL
Lecture, Discussion**

Division of Management



During the last five years, there has been an increasing demand for courses in Supervision, Production, Methods, Motion and Time Study, Safety, Personnel and Labor Relations. Three major curricula leading to the Associate in Science degree have been developed within the Division of Management. The program in Industrial Administration is designed primarily for persons whose major administrative responsibility might be in a staff department dealing with materials, methods, or other non-personnel phases of the business. The Personnel Supervision program is designed for those who are concerned primarily with the managing of personnel. An Industrial Safety option is available for students approaching the subject either from a personnel or non-personnel position.

While these programs are organized primarily for degree students, special students who are qualified by experience or previous study may be admitted to any course. Instruction, where practicable, is given by men who are in immediate contact with current industrial problems in the field. Visiting specialists in certain areas conduct classes in their specialties.

Students electing a program in the Division of Management are subject to an entrance requirement in mathematics (See page 24). Non-degree students may be admitted to special advanced courses without meeting this requirement, but they are referred to the regulations concerning non-degree students as set forth on pages 20 and 21.

Personnel Supervision

Five types of students find study in personnel supervision profitable: (1) those who wish to prepare for the line supervisory positions in business and industry; (2) those who wish to secure a background for a staff position in personnel relations; (3) present foremen and members of "middle management" who desire to broaden the base of their technical training; (4) engineers, accountants and others in staff positions who desire to prepare for supervisory responsibilities in their fields; (5) union stewards and officers.

These students find about one half of their program devoted to fundamentals of human relations and the other half to the technical aspects of the job, but even in the technical aspects it is not forgotten that a supervisor of personnel functions through employees as groups and as individuals. Psychology, Fundamentals of Supervision, Personnel Administration, Management-Labor Relations, and Personnel Seminar are courses stressing the principles of scientific management as related to personnel work. An overall view of industry is emphasized in industrial organization and management, while specific aspects of the industrial process are examined in Methods and Costs and Production Control. The required English program

is to give competence in writing and speaking; and courses in sociology, economics, and science help the student to realize the impact of these forces on man's daily life and work.

Since the program is arranged in a sequence of constantly increasing levels of technical and theoretical training, it is possible for a student to study integrated units of one, two, three, or four years duration, depending on the degree of training he desires.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Methods and Costs (PS 21) Fundamentals of Supervision (PS 22) Personnel Administration (PS 23-24) Modern Civilization (Soc 13-14)	Methods and Costs (PS 21) Fundamentals of Supervision (PS 22) Personnel Administration (PS 23-24) Elective
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Economics (Ec 33-34) Elective Management Statistics (IA 35) Production Control (IA 32) or Public Relations (BA 31-32)	Management-Labor Relations (PS 41) Personnel Seminar (PS 42) Modern Science (Sc 11-12) Management Statistics (IA 35) Production Control (IA 32) or Public Relations (BA 31-32)
	Summer		Elective
4	Fall and Spring	Management-Labor Relations (PS 41) Personnel Seminar (PS 42) Modern Science (Sc 11-12) Elective	

Industrial Administration

The basic program in Industrial Administration provides a background for those whose administrative responsibilities lie within the area of such a staff function as purchasing, inspection, production control, time study or methods. To meet the need for a modern industrial administrator with an understanding of the impact of the non-industrial world upon the problem of industrial administration, students in this program study the scientific method, psychology, sociology and economics. Writing and speaking are tool subjects.

Students working in the field of time and motion study should take as electives elementary accounting and personnel administration. Time study is a cost control tool and is thus related to the accounting function. Time study is the basis of incentive standards and is thus related to wage administration which is a personnel function.

Students desiring to enter administrative positions which require more engineering background than is provided in this program are referred to the description of the Tool Design Engineering Program. The course of study should be worked out with the chairman of engineering or management as advisor.

This program may be studied in units of one, two, three, or four years duration. The sequence of courses has been arranged in a manner which will permit various levels of technical and theoretical training, depending on the present and future occupational needs of the student.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Modern Civilization (Soc 13-14) Methods & Costs (PS 21) Production Control (IA 32) Elective	Elective Methods & Costs (PS 21) Production Control (IA 32) Modern Science (Sc 11-12)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Economics (Ec 33-34) Management Statistics (IA 35) Quality Control (IA 36) Modern Science (S 11-12)	Engineering Drawing (D 11-12) Management Statistics (IA 35) Quality Control (IA 36) Methods Engineering (IA 41-42)
	Summer		Elective
4	Fall and Spring	Engineering Drawing (D 11-12) Methods Engineering (IA 41-42) Elective	

Industrial Safety

Majors in the Division of Management may elect the Industrial Safety option. This option is designed primarily for safety engineers and safety supervisors or those preparing for such positions. In this option the student may secure an understanding and appreciation of the fundamentals of safety, the scientific analysis of safety problems, a study of methods improve-

ment to eliminate hazards, and some research and creative work in accident prevention.

Students whose responsibilities chiefly involve materials, methods, or the non-personnel aspects of safety must select two of their three electives from the following subjects:

Engineering Drawing
Production Control
Management Statistics

Mechanical Processes
Engineering Materials
Quality Control

Those whose responsibilities are primarily related to personnel supervision must elect two of the following subjects:

Personnel Administration
Public Relations

Fundamentals of Supervision
Management-Labor Relations

To be certain of fulfilling degree requirements, any student in the industrial safety option taking an elective should submit his tentative schedule to the program chairman for approval.

Students not desiring to study the complete program and who find one of shorter duration more suitable to their needs may enroll for courses of study of one or more years in length. Such programs will be arranged into an integrated unit suitable to the technical and theoretical requirements of the students' present or future positions.

YEAR	SEMESTER	FOUR YEAR PROGRAM	THREE YEAR PROGRAM
1	Fall and Spring	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)	English (E 13-14) Psychology (P 23-24) Industrial Organization & Management (IA 11-12)
	Summer		Modern Civilization (Soc 13-14)
2	Fall and Spring	Modern Civilization (Soc 13-14) Methods & Costs (PS 21) Elective (2½ Semester Hours) Elective (5 Semester Hours)	Industrial Safety (S 11-12) Methods & Costs (PS 21) Elective (2½ Semester Hours) Elective (5 Semester Hours)
	Summer		Economics (Ec 33-34)
3	Fall and Spring	Industrial Safety (S 11-12) Elective Economics (Ec 33-34)	Methods Engineering (IA 41-42) Adv. Industrial Safety (S 21-22) Modern Science (Sc 11-12)
	Summer		Elective
4	Fall and Spring	Methods Engineering (IA 41-42) Adv. Industrial Safety (S 21-22) Modern Science (Sc 11-12)	

One-Year Program of Full-Time Study



The College offers the opportunity for carrying a full-time program of study (30 semester hours of credit) by scheduling classes between the hours of 1 p.m. and 9:30 p.m., the evening hours being limited to Monday, Wednesday, and Friday evenings.

This full-time program serves several functions:

Transfer to Another College — A student who plans to attend another college at a later date may in one school year, acquire 30 semester hours of credit in this college to be used for advanced standing in the other college. The student should be aware of the specific requirements of the later college and select his program in this college accordingly. The student is advised, therefore, to be prepared to indicate these specific requirements when he is interviewed for program selection in this college.

Selection of courses for afternoon study may be made in the fields of English, Mathematics, Physics, Chemistry, Economics, Sociology, Accounting, Modern Science, Psychology, and Engineering Drawing. A wider selection of courses for evening study is offered. Reference is made to the section of the catalogue on "Description of Courses".

Transfer to Work-Study Program in This College — By carrying a full-time study load for a year, a student may continue his studies for two more years on the work-study basis (part-time study load—full-time work load), acquiring the Associate Degree in three years. Selection of course programs for this function hinges on the choice of the main field of study: business, engineering or management. Thus, students enroll in any one of these three main divisions. Reference is made to that part of the catalogue dealing with "Admissions". Their program will consist of six subjects, each offering five semester hours of credit. Five of these subjects will be required, the sixth will be elected. It will be possible to schedule the required subjects in the afternoon, while the elective may possibly come in the evening schedule. Choice of the elective should be made in consultation with the appropriate division chairman, since this elective may bear an important relationship to the future sequence of the program.

An outline of the program of study in each division follows:

Division of Business

English—Writing and Speaking (E 13-14)
Introductory Accounting (A 11-12)
Modern Civilization (Soc 13-14)
Economics (Ec 33-34)
Law of Contracts and Business Associations (L 11-12)
Elective

Division of Engineering

English—Writing and Speaking (E 13-14)

Mathematics (M 13-14)

Engineering Drawing (D 11-12)

Engineering Physics (Ph 11-12)

Inorganic Chemistry (Ch 21-22)

Elective

Division of Management

English—Writing and Speaking (E 13-14)

Industrial Organization and Management (IA 11-12)

Modern Civilization (Soc 13-14)

Modern Science (Sc 11-12)

Psychology (P 23-24)

Elective

General Program — A student desiring neither of the above functions may wish a year of full-time study of courses of his particular choice.

Among reasons for this type of program may be indecision on the student's part relative to a specific field of specialization or he may wish to add breadth to his program, the latter applying to students already having training in special fields. He may select classes, either in afternoon or evening or both, from any of the subject matter or division fields described in the two functions above. His choice will be limited only by his inability to satisfy prerequisites.

The number of students to be admitted to the one year program will be limited in accordance with availability of faculty and physical facilities. It is recommended that students having a real interest in this one year program complete their registration at a time considerably in advance of the normal registration date. Having registration completed by the end of July should insure consideration for admission to the one year program in September.

Students enrolling in this one year program must meet the same admission requirements, are subject to the same regulations, and enjoy the same privileges as the work-study students.

General Studies



Although offering courses in the special fields of Business, Engineering, and Management, the College realizes that there are students who may feel that they are not ready to specialize, either educationally or vocationally. This type of student may wish to explore several fields on his initial contact with post-secondary education. Thus, he hopes to be better able to determine the field of his specialization at a later date. Also, there are students who may wish a liberal education, one of breadth, with no intent toward specialization. There are also those who may have specialized and now wish to add breadth to their previous education such as the engineering graduate or the student who may have had little in economics, sociology and other social studies. And then, there are those adults in the community who may wish to study for avocational reasons. Such a person may have an interest in literature or philosophy.

It is primarily for the groups described above that the College offers opportunity to study in the field of general studies. No specific sequence of courses needs to be followed. However, the student must satisfy the prerequisites of any subject for which he may register by the means indicated in the catalogue or by submission of evidence indicative of adequate background for the course.

For some time, the College has been studying the needs for offerings in the general studies field. In the immediate past, courses in modern literature, philosophy, and a seminar in writing have been added to the College's offerings. This study is in process and will continue in process endeavoring to discover and answer the needs in general studies. Therefore, it can be expected that new courses will be offered from time to time. Thus, individuals and groups should feel free to consult with the College concerning courses which may not appear in the catalogue.

For the present school year the following courses will be offered:

Economics

Economics (Ec 33-34). Credit, 5 semester hours.

English

Grammar Laboratory (English A). One semester.

Reading Laboratory (English B). One semester.

Writing Laboratory (E 13). Credit, 2½ semester hours.

Speaking Laboratory (E 14). Credit, 2½ semester hours.

Seminar in Writing (E 15- 16). Credit, 5 semester hours.

Modern Literature (E 18). Credit, 2½ semester hours.

Journalism (E 21-22). Credit, 5 semester hours.

Mathematics

Fundamental Mathematics (Math A, B, C, D).

Mathematics (M 13-14). Credit, 5 semester hours.

Mathematics (M 21-22). Credit, 5 semester hours.

Philosophy

Philosophy (Phil 11) . Credit, 2½ semester hours.

Psychology

Psychology (P 23-24) . Credit, 5 semester hours.

Science

Modern Science (Sc 11-12) . Credit, 5 semester hours.

Sociology

Modern Civilization (Soc 13-14) . Credit, 5 semester hours.

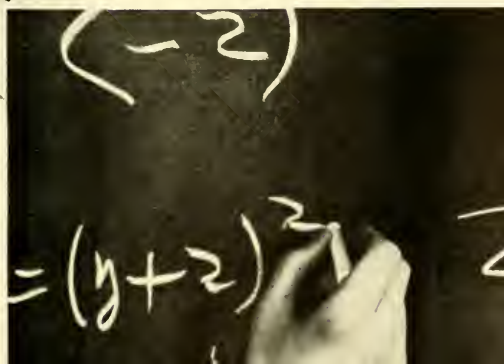
As yet, the College does not offer a complete program in general studies leading to the Associate Degree. Plans for the inauguration of such a program are dependent upon indicated need.



— RECORDING
AND PLAYBACK



MATHEMATICALLY
SPEAKING —





PREPARATIONS
FOR FLIGHT



UDENT COUNCIL
mpaigning



— OVER THE TOP



INTO THE CUP —



Description of Courses



Accounting

Introductory Accounting (A 11-12). Credit, 5 semester hours.

This course, which is prerequisite to all other courses in accounting, familiarizes the student with fundamental principles of accounting. This work is supplemented by progress tests, problems, and systematic practice work. The fields of study covered include: interpretation of assets, liabilities, and net worth; preparation of statements; books of original entry; ledgers; and work at the end of a fiscal period.

Intermediate Accounting (A 21-22). Credit, 5 semester hours.

This course is a continuation at a more advanced level of the principles studied in Introductory Accounting. It is intensive and adapted to present day changes in the accounting profession. The subject matter includes: the corporation, asset valuations, liabilities, installment sales and consignments, analysis and interpretation of financial statements, sources and application of funds, depreciation methods, inventory evaluation, reserves, and surplus analysis. There is considerable practice in the form of problem solutions. Reference is made to the publications of the professional accounting societies.

Prerequisite: A 11-12.

Cost Accounting (A 23-24). Credit, 5 semester hours.

This course embraces the study of departmental and process cost accounting, specific order cost accounting, and standard costs. Thorough consideration is given to cost elements of material, labor, and manufacturing expense. Also included is the study of cost estimating, budgets in cost control, cost relationships, and cost reports for use of management. Forms and methods used in standard costs and analyses of variances for operational use are considered. Practical application of the principles studied is given through the working of practice sets and problems.

Prerequisite: A 11-12.

Advanced Accounting (A 31-32). Credit, 5 semester hours.

This is the final general accounting course covering all other phases of accounting not previously covered and not considered of a specialized nature. Upon completion of this course, the student is prepared for advanced study in specialized accounting and C.P.A. problems. Problems are solved under conditions similar to those required by the American Institute of Accountants. Emphasis is placed upon accounting for consolidations, but the following phases are also covered: partnerships; enterprises in receivership, liquidating partnerships in installments, estates and trusts; ventures, domestic home office and branch accounting.

Prerequisite: A 21-22.

Auditing (A 33-34). Credit, 5 semester hours.

This course includes examination of the financial condition, review of operations, preparation of audit program, audit working papers, and report upon examination of the client's business. The accountant's relationship with the client and the ethics of the profession are thoroughly discussed. A complete laboratory test is worked out to supplement the text study. Recent developments in audit procedure are included, systems in internal

check analyzed, comparisons of balance sheets and detailed audits made. A background is developed in the theory of auditing in preparation for the C.P.A. examination.

Prerequisite: A 21-22.

Income Tax Procedure (A 41-42). Credit, 5 semester hours.

This course embraces a practical application of the principles of Federal Income Tax Law to concrete situations. The problems include the preparation of corporation, fiduciary, partnership, and individual tax returns; claims for refunds, credit, and abatement; records, reports, and requirements of Social Security and state and federal unemployment taxes; and the proper accounting procedure for tax records.

Prerequisite: A 21-22.

C.P.A. Problems (A 43-44). Credit, 5 semester hours.

This course is an analysis and study of C.P.A. problems from examinations of state boards of accountancy and the American Institute of Accountants. There is included a study of the principles of municipal accounting with particular reference to the requirements of Connecticut laws and regulations, and C.P.A. problems in the subject; institutional accounting with reference to methods peculiar to such institutions as colleges, hospitals, etc. A wide variety of problems is included, some of which are worked out under state examination conditions.

Prerequisites: A 31-32, A 33-34, L 21-22, Ec 33-34. (Ec 33-34 may be taken concurrently).

Business Administration

Business Finance (BA 21-22). Credit, 5 semester hours.

After a brief study of the various forms of business organization, the corporate form of organization is studied in greater detail. Classes of stocks and bonds and the rights of the holder are considered. Management and distribution of income are examined in detail with regard to surplus and dividend policies, reserves, depreciation, and financing of expansion. There is continuous stress on the internal control of finances through budgets and organization as well as financing through banks and investment houses.

Public Relations (BA 31-32). Credit, 5 semester hours.

This course deals with the principles and methods of public relations practice as they have been developed by the pioneers and leaders in this comparatively new field. It shows how these methods are used by individuals, groups, companies organizations, to sell goods, services and ideas and improve their relations with all in a position to affect their welfare. One of the semester projects is the development of a practical public relations program for a local activity.

The course serves as an introduction to public relations and aims to develop an understanding of the subject which can be helpful to anyone in any field of business or professional or community life.

Prerequisite: P 23-24.

Business Seminar (BA 41-42). Credit, 5 semester hours.

This course is offered to give degree students in Business Administration an opportunity to examine a problem of their own particular interest and choice. The solution of this problem and the conclusions reached by the student will be presented in the form of a written report. In addition to group discussion and criticism, work will consist of independent reading and research. Various contemporary issues related to business policy, administrative organization, public relations, etc., will be investigated.

Prerequisites: 40 hours of college credit of which at least 20 hours must be selected from: Economics, Modern Civilization, Introductory Accounting, Business Finance, Psychology, Public Relations, and Law.

Business Law

Law of Contracts and Business Associations (L 11-12). Credit, 5 semester hours.

This course involves a study of basic principles of the law of contracts, agency, partnerships, limited partnerships, and corporations.

Contracts will involve a study of the formation of contracts, capacity of parties, offer and acceptance, performance, and discharge. Agency will deal with the appointment of agents, the relationship of principal and agent, power of the agent to bind his principal, duties of agent and principal to one another and to third parties.

Business associations will involve a study of the law relating to the formation and operation of the usual types of business organization. Also considered is the legal relationship among the individuals within the business organization as well as their relationship with third parties.

Law of Sales (L 21). Credit, 2½ semester hours.

This course is an advanced study of Business Law comprising: bailments; duties and liabilities of bailees, common carriers, and warehousemen; the laws governing the rights of parties engaged in the transfer of personal property. Questions of title, risks assumed, rights of creditors, express and implied warranties, buyers' and sellers' remedies, together with the business background out of which such relations arise are also considered.

Prerequisite: L 11-12.

Law of Commercial Paper and Bankruptcy (L 22). Credit, 2½ semester hours.

This course is a study of the Negotiable Instruments Law, dealing with negotiable promissory notes, bills of exchange and bank checks with an analysis of their form and function in commercial transactions. A brief survey of bankruptcy procedure under the federal bankruptcy laws is considered.

Prerequisite: L 11-12.

Chemistry

Inorganic Chemistry (Ch 21-22). Credit, 5 semester hours.

The objective of this course is to place emphasis on fundamental facts and principles of modern chemistry, particularly as applied in the field of engineering materials, and to afford practice in the accurate statement of scientific ideas and logical deduction from experimental observation. *It does not presuppose any knowledge of chemistry.*

Prerequisite: M A-B, or equivalent.

Organic Chemistry (Ch 31-32). Credit, 5 semester hours.

This course is designed as a preliminary to advanced work with organic constructional materials, e.g., rubber and plastics. It deals with fundamental principles of the structure, reactions and properties of organic compounds, particularly chain and ring structures. Polymerization and depolymerization are covered with emphasis on the correlated property effects.

Prerequisite: Ch 21-22.

Rubber and Plastics (Ch 41-42). Credit, 5 semester hours.

This course is designed to acquaint the student with the manifold types of organic constructional compounds employed industrially, with structural characteristics of each and the properties associated with specific structures, with fabrication processes, problems and variables and with the fields of utilization based on the background material.

Prerequisite: Ch 31-32.

Drawing and Design

Engineering Drawing (D 11-12). Credit, 5 semester hours.

This is an elementary course in engineering drawing designed to teach the use of instruments, the fundamental principles of projection, drafting room standards and conventions, lettering, selection and use of scales, orthographic projections, revolutions, developed surfaces, intersections and auxiliary views, and the making and dimensioning of complete working drawings of simple machine parts.

Elementary Machine Design (D 33-34). Credit, 5 semester hours.

The analysis and design of such elements as fastenings, bearings, gears, shafts, clutches, pulleys, and cams are discussed. Some machine parts are studied from the standpoint of kinematics, and their motions are analyzed.

Prerequisites: D 11-12, EM 31-32.

Advanced Machine Design (D 41-42). Credit, 5 semester hours.

The elements of machine design studied in the first year are unified in the complete design, individually selected and developed by the student. Advanced problems, such as balancing and critical speeds, are considered the latter part of the year.

Prerequisites: D 33-34.

Tool Design (D 45-46). Credit, 5 semester hours.

A lecture, discussion and drafting room course covering production tools, such as punches and dies, gauges, cutting tools, machine tools, jigs and fixtures. Stress is laid on strength, accuracy and costs, utilizing practical examples from industry. A part of the course consists of a thesis project.

Prerequisites: D 33-34.

Economics

Economics (Ec 33-34). Credit, 5 semester hours.

The course aims at an understanding of the principles, institutions, and practices which form the basis of our economic system and activity. Such aspects of our economy as production, price, exchange, and distribution will be considered. The course will examine the basic economic aspects of capitalism and the other "isms". Opportunity will be offered for the student to do independent work in the field of his own specialized interest.

Electricity

Electric and Magnetic Circuits (EE 23-24). Credit, 5 semester hours.

Fundamental concepts of electricity. Ohm's law and Kirchhoff's laws. Properties of conductors and insulators. Nonlinear resistance circuits. Magnetic circuits and fields. Induced and generated electromotive force. The dielectric circuit. Brief survey over a-c circuits, d-c and a-c machines and electronic tubes and circuits. With laboratory.

Prerequisites: M 13-14, Ph 11-12, M 21-22. (M 21-22 may be taken concurrently).

Electrical Metering (EE 26). Credit, 2½ semester hours.

Discussion of construction and operation of various types of a-c and d-c ammeters, voltmeters and wattmeters; frequency meters; a-c and d-c bridges; flux meters. Demonstration includes laboratory work.

Prerequisites: EE 23-24. (EE 24 may be taken concurrently).

Alternating Current Circuits (EE 31-32). Credit, 5 semester hours.

Fundamental theory of single phase and polyphase alternating current circuits, instruments and measurements is considered. Suitable laboratory work is included.

Prerequisites: EE 23-24, M 21-22.

Direct Current Machines (EE 35-36). Credit, 5 semester hours.

This course includes a study of the fundamental laws of direct current circuits and magnetic circuits; mechanical construction of the d-c machine; magnetic circuits of d-c machines, flux leakage; leakage around windings embedded in slots; armature and field windings; electromotive and magnetomotive forces of the armature, armature reaction; commutation; generator and motor characteristics; stability of motors; special machines, such as 3-wire generator, arc-welding generator, diverterpole generator, dynamotor, rototrol generator, Rosenberg generator (amplidyne), multistage rototrol; losses and heating in d-c machines; starting of d-c motors (manual and automatic starters). Laboratory work is also included.

Prerequisite: EE 23-24.

Electric Power Transmission (EE 37-38). Credit, 5 semester hours.

This course includes a study of the calculation of inductance and capacitance of transmission lines; stability of transmission lines; calculation of fault currents by the method of symmetrical components; short discussion of relay systems and time delay in circuit breakers, of breaker construction and other protective equipment such as current limiting reactors, bus arrangement in power stations, distribution systems.

Prerequisites: EE 31-32, EE 41-42. (EE 41-42 may be taken concurrently).

A. C. Machines (EE 41-42). Credit, 5 semester hours.

This course deals with the fundamental principle of transformers, motors, generators, etc., and their practical application. Laboratory work on their equipment supplements the recitations.

Prerequisite: EE 31-32.

Elementary Electronics (EE 43-44). Credit, 5 semester hours.

This course includes a study of the physical concepts of electronics; thermionic emission; various tube types and characteristics; methods of analyzing vacuum tubes and vacuum tube circuits; amplifier definitions, classifications, circuits; analysis and design of amplifiers; modulation and detection; vacuum tube oscillators; glow and arc discharge tubes; light sensitive tubes and cells; rectifiers and filters; electron tube instruments, with stress on industrial applications where possible.

Prerequisites: EE 23-24, EE 31-32. (EE 31-32 may be taken concurrently).

Electronics Laboratory (EE 43L-44L). Credit, 5 semester hours.

Experiments, supplementing EE 43-44, will be preceded by a short review of underlying principles and a report on each experiment to be written as home work. Close correlation with EE 43-44 will be essential. These two courses will lay the foundation on which the concepts of advanced electronics can be based.

Prerequisites: EE 23-24, EE 43-44. (EE 43-44 may be taken concurrently).

Communications Circuits (EE 45-46). Credit, 5 semester hours.

This course includes a study of the filter theory, transmission line theory, coaxial cables and wave guides; antenna design and radiation patterns; advanced concepts of electric and magnetic fields; pulse forming networks; reactance functions and nondissipative networks; network theorems; characteristics of 4-terminal networks; generalization of four terminal networks.

Prerequisite: EE 31-32.

Advanced Electronics (EE 47-48). Credit, 5 semester hours.

This course includes a review of EE 43-44, and advanced study in VHF techniques, types of VHF tubes, VHF circuits and applications, UHF techniques, types of UHF tubes, UHF circuits and applications, and practical applications of RF, VHF and UHF principles and analysis of such apparatus as direction finders, range finders (radar), etc.

Prerequisite: EE 43-44.

Engineering Mechanics

Mechanics (EM 21-22). Credit, 5 semester hours.

In the first semester, the theory and application of the principles of static equilibrium, stress in framed structures, friction, and rectilinear and curvilinear motion are studied.

The second semester includes force, mass and acceleration; center of gravity and moment of inertia; work, power and energy; and impulse and momentum.

Prerequisites: Ph. 11-12, M 21-22. (M 21-22 may be taken concurrently).

Mechanical Processes (EM 23). Credit, 2½ semester hours.

This course is designed to acquaint the student with the basic processes and equipment of industry. It begins with the processes involved in the production of engineering raw materials and proceeds through the various methods by which these materials are formed and combined into finished products. Foundry, forge, machine-shop, presswork, die-casting, and welding are examples of the methods and equipment discussed.

Engineering Materials (EM 26). Credit, 2½ semester hours.

A survey of the common metals used as engineering materials. This course is conducted largely by lecture and discussion. Attention is directed to the production of these materials, methods of forming or fabrication, and typical properties of the final product. The bases for the selection of a particular material for a specific use, and the specifications by which they are purchased also are considered.

Strength of Materials (EM 31-32). Credit, 5 semester hours.

This course considers the theory of stress and resistance of materials; stress distribution in riveted joints, shafts, beams, and columns; principal stresses; laboratory demonstrations in materials testing; hardness, fatigue and impact strength; and problems in machine design and building construction.

Prerequisite: EM 21-22.

Mechanics of Machines (EM 33-34). Credit, 5 semester hours.

Advanced applied mechanics emphasizes the applications of engineering problems including governors, gyroscopic devices, balancing, vibration, friction, dynamics of the reciprocating engine, hoisting machinery, etc. The course is of the lecture and discussion type with assigned problems designed to encourage analytical reasoning.

Prerequisite: EM 21-22.

English

Grammar Laboratory (English A). One semester.

This course is intended to bring students to an acceptable level of proficiency in English grammar and usage, whatever their prior preparation in the subject may have been. Special work is prescribed for those whose preparation is inadequate and for those who show need of review. The objectives of the course are: first, to teach the student the fundamental principles upon which good English is based; second, to give him practical experience in the use of themes, recitations, note-books and conferences; and to train in the use of the dictionary.

Reading Laboratory (English B). One semester.

This course aims at helping the student to read faster and to get more from what he reads. The objectives are more effective study habits, increased vocabulary, the enjoyment of reading and the development of independent thinking. The instruction emphasizes training in the skills of concentration, analysis and retention of ideas. The subject matter includes methods and mechanics of reading, use of the dictionary, values in words, patterns of writing, the outline, rationality of argument, propaganda, and literary values. The work of the course includes reading and exercises in the text, vocabulary exercises, supervised reading for speed, training films and discussion.

Writing Laboratory (E 13). Credit, 2½ semester hours.

This laboratory course is designed primarily to help students learn to write by writing—to develop the ability to organize thoughts quickly and effectively, to write with speed and facility, and to use simple written English. Special emphasis is placed upon choice of words and their connotative value. The laboratory section provides practice in applying these principles to the writing of letters, memos, reports, job descriptions, and other business papers.

Speaking Laboratory (E 14). Credit, 2½ semester hours.

This course serves as an introduction to the principles of speech. The objectives are: to develop in the student proficiency in the use of vocal and bodily aids in various speaking situations, and to help the student gain confidence and fluency when speaking extemporaneously, as in group discussions, or in everyday conversation. Recordings are used for self-analysis and criticism.

**Seminar in Writing (E 15-16). One or two semesters with 2½ hours credit per semester.
(Either semester may be taken independently of the other)**

This course is designed to help the student develop an effective style in one or several types of composition, including technical, journalistic and creative writing, through practice projects, individual and group instruction, and class discussion and criticism. The problems common to all writers are considered, and the types of writing chosen by the class are studied for application and comparison.

Prerequisite: E 13 or its equivalent.

Modern Literature (English 18). Credit, 2½ semester hours.

A course in the reading of approximately ten representative works of outstanding contemporary authors, chiefly American and English. The reading and classroom discussions will be supplemented by lectures designed to provide certain theories of criticism and the historical background. The goal is an understanding of the function of literature and of the artist in society.

**Journalism (E 21-22). One or two semesters with 2½ hours credit per semester.
(Either semester may be taken independently of the other)**

Students are given the opportunity to learn all phases of journalism through the actual writing and publication of a monthly newspaper. Class work is informal so that students may develop their own interests in the field.

Industrial Administration

Industrial Organization and Management (IA 11-12). Credit, 5 semester hours.

This is a fundamental course dealing with the history of American industry; the organization of the industrial enterprise; the making of the product, with its manifold problems of men, materials, and machines; and the distribution of the product to the consumer. Through such a survey, together with specific cases, the intent is to provide a working knowledge of our highly complex industrial organizations, and at the same time, to establish the principles by which competent management is guided.

Production Control (IA 32). Credit, 2½ semester hours.

The instruction stresses the basic principles that govern production control in an industrial plant. These principles are worked out in the problems of procuring and controlling materials, in routing, scheduling, and dispatching. The intent of the course is to familiarize the student with the use of the most up-to-date methods in this field, including visual control systems.

Prerequisite IA 11.

Management Statistics (IA 35). Credit, 2½ semester hours.

Selected elements from elementary statistics as they apply to management problems including measures of central tendency, measures of variability and simple correlational techniques. The use of statistics as a management tool will be illustrated in class problems.

Prerequisite: IA 11-12 and MM A-B or satisfactory performance on the Management Mathematics Test.

Quality Control (IA 36). Credit, 2½ semester hours.

This course covers the area of quality control in precision manufacturing by a study of methods of meeting exacting specifications in the raw material, in the processing, and in final testing. It traces these methods through raw materials control, through process inspection and testing and through final inspection and testing both in the processing of parts and in the assembly line type of manufacture. Applications of statistical methods are explained through case studies.

Prerequisite: IA 35.

Methods Engineering (IA 41-42). Credit, 5 semester hours.

Instruction in methods of analyzing plant equipment, products, and operations is covered in this course. Process charts, flow charts, analysis sheets, preparation of summaries of operations, analyses of tools and requisite equipment, specifications for materials, the handling of materials in process, adapting plants to new products, the correlation of methods to safety and health requirements are some of the items considered. Time and motion study techniques are introduced in connection with many of these problems.

Prerequisite: PS 21.

Industrial Safety

Industrial Safety (S 11-12). Credit, 5 semester hours.

The approach to the subject of industrial safety is from an analytical and scientific viewpoint. It aims to give a foundation to the student upon which he can build a better knowledge of safety and accident prevention. Each student will be required to give at least two talks before the class on a relevant subject and present a written report of not less than one thousand words. Safety talks of this course will be recorded and played back to the class for criticism and suggestion in order to increase the individual's ability in safety presentation.

Advanced Industrial Safety (S 21-22). Credit, 5 semester hours.

The advanced course covers more specialized work. In addition to discussion of special hazards, including occupational diseases, it is expected that students will, during the course of instruction, be doing advanced work in speaking and writing on safety subjects. There will be some laboratory work in connection with this course. The use of field instruments required for occupational disease studies will be thoroughly covered. Demonstration of visual and sound technique in the preparation of safety education material is also provided. The emphasis throughout will be on creative work.

Prerequisite: S 11-12.

Management Mathematics

Management Mathematics (MM A-B). Two semesters.

The first semester (MM A) covers arithmetical operations and functions. Practical applications, drawn from the field of management, will be used to stress the use of fractions, proportion, and per cent. It will include the use of tables, the determination of squares and square roots, the location of decimal points, and a discussion of significant figures. Instruction and practice in the use of a slide rule will be included.

The second semester (MM B) will cover positive and negative numbers, algebraic symbolism, algebraic equations and operations, radicals, exponents, and the construction and interpretation of graphs. Problems will deal primarily with management applications.

Mathematics

Mathematics A-B. Two semesters work in one semester.

The work in algebra includes the fundamental operations of addition, subtraction, multiplication, and division, and applications of these operations to problems. Topics discussed include: factoring, fractions, and theory of equations. In plane geometry the concept of a proof is emphasized and applied, and the properties of the triangle are considered.

Mathematics C D. Two semesters work in one semester.

During the term the fractional equation is studied and applied to more difficult problems; also systems of equations and the laws of exponents. Further work in algebra includes the following topics; the quadratic equation, ratio and proportion, variation, the trigonometry of the right triangle, and logarithms. In plane geometry the circle is discussed and studied, and consideration is given to similar figures and areas.

Mathematics (M 13-14). Credit, 5 semester hours.

The first semester (Math 13) is devoted entirely to the study of trigonometry. The topics studied include trigonometric functions, fundamental relations, solutions of right and oblique triangles, trigonometric reductions, angular measure, graphs of the functions, composite angles, inverse functions and logarithms.

During the second semester (Math 14) the fundamental operations of algebra are thoroughly reviewed and various topics such as the functional concept, variation, synthetic division, complex numbers are studied. Special emphasis is placed on the solution of work problems. The analytic geometry of the straight line, circle and parabola are next considered. The last few weeks are devoted to the study of the limit concept and its application to the calculus. The differentiation and integration of the power function conclude the term's work.

Prerequisite: Matriculation in Division of Engineering or equivalent (see page 42).

Mathematics (M 21-22). Credit, 5 semester hours.

This course is entirely concerned with the calculus and its applications. The topics studied include the differentiation and integration of the power trigonometric exponential, logarithmic and inverse trigonometric functions. Applications using these functions are made to problems in physics and science. They include maxima and minima, differentials, rates, areas and volumes of revolution, length of arc, and moments of inertia.

Prerequisite: M 13-14.

Metallurgy

Non-ferrous Metallurgy (Mt 31-32). Credit, 5 semester hours.

The physical metallurgy of aluminum, magnesium, copper, nickel, zinc, lead, tin and their alloys is covered by lecture, discussion and laboratory work. Melting, alloying, casting, extruding, rolling, drawing, and heat treatment of the metals are studied with em-

phasis on the efforts of variables and reasons therefor. Typical mill and service difficulties are analyzed in light of the specific fundamental principles involved.

Prerequisite: Ch 21-22.

Steels and Their Heat Treatment (Mt 41-42). Credit, 5 semester hours.

The course covers all grades of carbon and alloy steels used for press, structural, automotive, tool and die work, and in addition, cast irons as a supplementary or competitive material. The fundamentals, such as Fe-C phase diagram and transformation diagrams, grain size, and hardenability, are studied and then applied to a study of heat treatments including annealing, hardening, tempering, and carburizing. Equipment including protective atmospheres, liquid baths and induction heating are considered with a view of the particular fields of application. Laboratory work is supplemented by lectures and discussions.

Prerequisite: Ch 21-22, or EM 31-32. (EM 31-32 may be taken concurrently.)

Office Supervision and Management

Office Organization and Management (OM 11-12). Credit, 5 semester hours.

This course considers the profession of office supervision and management by a study of the qualifications, responsibilities, and functions of the office manager. It deals with the organization of an office with respect to its personnel, physical layout, and equipment. The various departments of an office, such as filing, stenographic, credit, etc., are analyzed. The place and function of the office in the whole organization of the business is studied. Attention is given to costs and budgets.

Office Supervision and Management Seminar (OM 41-42). Credit, 5 semester hours.

This course is an opportunity to apply and summarize previous educational and practical training in the field of office management. Problems of contemporary and practical nature will be offered for solution. Reading, group discussion, and independent research and study will provide material for a written paper.

Prerequisites: 40 hours of college credit of which at least 25 must be selected from: Office Organization and Management, Psychology, Economics, Public Relations (may be taken concurrently), Personnel Supervision, Fundamentals of Supervision, Modern Civilization.

Personnel Supervision

Methods and Costs (PS 21). Credit, 2½ semester hours.

A supervisor or foreman is responsible for methods and costs. Though the technical responsibility may lie with the methods and costs departments, the supervisor must get results through his personnel. This course treats not only the basic principles of work simplification and of the factors comprising cost, but considers the supervisor's problem of gaining personnel cooperation in the improvement of methods and the control of costs.

Prerequisite: IA 11-12.

Fundamentals of Supervision (PS 22). Credit, 2½ semester hours.

There can be no denial of the need for sound and mutually satisfactory relations between management levels. The position of the foreman in labor relations is a knotty phase of the situation. The development of scientific management has created some line and staff conflict. Such problems are considered in this course. Beginning with a study of faults in organization, the course will continue with the conference determination of the responsibilities and authority of members of management at the supervisory level. It will consider factors in the selection and training of supervisors for leadership, the supervisor's working relations, and his facilities for consultation and communication, ending with the determination of guiding principles for supervisors as members of management.

Prerequisites: IA 11-12 or OM 11-12.

Personnel Administration (PS 23-24). Credit, 5 semester hours.

The aim of this course is to provide a foundation in fundamental concepts and a general knowledge of techniques in the administration of personnel relations. Whether the student approaches the subject from the point of view of the line supervisor, staff or office man, or union leader, he should get from it an appreciation of common objectives in the determination and administration of personnel policy.

In the treatment of basic concepts the course will cover such subjects as the principles of personal adjustment, the social organization of business, motivation and incentives, employee attitudes and morale. Such techniques of personnel administration as interviewing, job analysis, appraisal and placement, training, merit rating, employee relations, and wage administration will be dealt with, not from the standpoint of training technicians in specific techniques, but to secure a breadth and depth in the approach to personnel problems.

Prerequisites: IA 11-12 or OM 11-12 and P 23-24.

Management-Labor Relations (PS 41). Credit, 2½ semester hours.

This course aims to present the problems involved in the relations of management and labor. It begins with a history of the labor movement, then considers the intervention of government in labor relations, and explains the legal framework within which plant practices evolve. The discussion of current practices in negotiation, in grievance handling, and in the settlement of disputes is designed to bring out a point of view which may contribute to a greater stability in relations. When possible, guest speakers will contribute to the establishment of that point of view.

Prerequisite: PS 23-24. (May be taken concurrently.)

Personnel Seminar (PS 42). Credit, 2½ semester hours.

The seminar is designed to accomplish two main objectives: (1) practice in conference leadership; (2) original and creative work which ties together the educational study in personnel supervision with the practical experience of the student. Carefully chosen problems, which vary from year to year, will be the subject matter of reports. Each member of the seminar will conduct a discussion of his problem.

Prerequisite: PS 41.

Philosophy

Philosophy (Phil 11). Credit, 2½ semester hours.

An introduction to reflective thinking on such central issues of human life as man's place in the universe, how we discover truth, the nature of beauty and the good, and the basis of moral choices. Ideas of a few major philosophers from Plato to Dewey will be presented. Stimulation of individual clear thinking upon life's most vital problem will be emphasized in discussion.

Physics

Engineering Physics (Ph 11-12). Credit, 5 semester hours.

This is a basic course in physics for technical students with laboratory, lectures, and demonstrations. Particular attention is paid to the basic principles of physics including mechanics, motion, velocity, acceleration, electricity, heat, etc. The course also stresses use of the slide rule, applied mathematics and graphical methods of presentation and analysis. Designed to orient the student to the engineering profession, the course aims to develop the habit of using correct methods of thinking and analysis in the solution of engineering problems.

Prerequisite: M C-D, or equivalent; matriculation in Division of Engineering or equivalent (see page 42). Ph 11 is prerequisite to Ph 12.

Thermodynamics and Heat Power (Ph 32-33). Credit, 5 semester hours.

This course includes a study of the principles of thermodynamics and their application to engineering problems, and a study of energy and energy transportations, properties of media, the Second Law of thermodynamics processes, cycles and combustion processes. Emphasis is placed on the solution of problems by the application of the energy equation and the Second Law. An introduction to steam power and internal combustion engines concludes the course.

Prerequisites: Ph 11-12, M 21-22.

Psychology

Psychology (P 23-24). Credit, 5 semester hours.

This course is designed to give the student a general knowledge of the important principles of human behavior. Topics included are: motivation, emotion, learning, personality, intelligence, etc. The utilization of psychological knowledge in relation to everyday human activities will be emphasized.

Sales and Marketing

Principles of Selling (SM 11-12). Credit, 5 semester hours.

The purpose of this course is to present definite techniques and basic principles of selling. This will include the study of: prospect selection, knowledge of the product, pre-approach and approach, demonstration, meeting objections, close and departure. Desirable personality traits of the salesmen are considered. The organization of the Sales Department and its place in the whole business organization are studied. There is a treatment of basic principles of sales management including: selection of salesmen, sales training programs, and policies. Each student will have opportunities to demonstrate his ability to sell a given product by means of class demonstration.

Marketing and Market Analysis (SM 23-24). Credit, 5 semester hours.

A study of the distribution and flow of goods or services from producers or sellers to consumers or buyers through various trade channels, including the marketing of farm and industrial products, raw materials, and consumer goods. Government controls, transportation, risk bearing, storage, and warehousing are carefully analyzed. Techniques and methods of market analysis are studied by considering basic types of analyses. The assembling of data and the application of results to the sales program or company are evaluated.

Advertising and Sales Promotion (SM 33-34). Credit, 5 semester hours.

The fundamental approach to advertising and sales promotion. Psychology of advertising, its economic significance, and an analysis of typical situations encountered by management in the use of advertising. Deals with the general field of advertising and sales promotion, the fundamentals of copy writing, layout, color and typography, display techniques, merchandising methods and material, selection of media, use of agency and direct advertising, methods of evaluating advertising results, together with the merchandising or capitalization of advertising through sales promotion.

Sales Administration & Management (SM 41-42). Credit, 5 semester hours.

Consideration is given to practical sales management and the Sales Manager's duties and responsibilities in relation to other departments. Methods of correlating sales, marketing and merchandising functions, and organized structure. Trade distribution channels, sales policies, agency or franchise selling, stock turnover, fair trade, together with the comparison of nationally advertised brand selling with other types. Personnel selection, sales training, morale building, compensation, work loads, and selling tools and equipment, as well as budgets, methods of supervision and evaluation.

Prerequisite: SM 11-12, SM 23-24, SM 33-34 (SM 33-34 may be taken concurrently).

Science

Modern Science (Sc 11-12). Credit, 5 semester hours.

This course is designed to give the student a knowledge of the physical sciences and of scientific method. It is not a laboratory course, but will deal with primary source material. Its aim is to emphasize the use of the scientific approach to all problems, and at the same time, to enable the student to appreciate fully the impressive impact of science upon his life.

Sociology

Modern Civilization (Soc 13-14). Credit, 5 semester hours.

The aim of this course is a critical survey, rather than a descriptive analysis, of the cultural, economic, and political problems of modern society. Attention will be given to the conflicting philosophies of communism, fascism, and democracy. The course will critically analyze present day institutions and problems. It will survey social trends, and will examine the underlying philosophies as well as possible solutions of these present day problems.

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**Curricula Leading to the
Associate in Science Degree**



Division of Business

Business Administration

Public Accounting

Industrial Accounting

Office Supervision and Management

Sales and Marketing

Division of Engineering

Electrical Power Engineering

Electrical Communication Engineering

Mechanical Design Engineering

Tool Design Engineering

Metallic Materials Engineering

Non-Metallic Materials Engineering

Division of Management

Personnel Supervision

Industrial Administration

Industrial Safety

